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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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FIFTY-SECOND YEAR

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LOCKWOOD TRADE JOURNAL CO. INC.

LESLIE R PALMER, PRESIDENT · GEO. S. MACDONALD, VICE-PRESIDENT & TREAS. · F. K. HOPPIE, SECRETARY

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PAPER TRADE JOURNAL

Vol. LXXVII. No. 8 Thursday, August 23, 1923

CASEIN DUTY DISASTROUS ASSERTS MARTIN CANTINE

Appearing Before United States Tariff Commission on Behalf of The Coated Paper Manufacturers, He Makes Vigorous Plea for Relief—Declares There is No Likelihood of the United States Ever Producing Sufficient Casein to Supply Domestic Consumption—Says Country Can Ill Afford Loss of an Industry Capitalized at More Than $97,000,000 —Quoted from Figures of Public Printer.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 21, 1923.—The question as to whether or not the duty of 2½ cents per pound on casein is right was argued before the United States Tariff Commission on Monday of last week when the farm element for the first time appeared before the commission.

A large number of witnesses testified both for and against the duty, including Martin Cantine, of the Martin Cantine Company of Saugerties, N. Y., who appeared before the commission as chairman of the committee representing the Coated Paper Manufacturers. Mr. Cantine asked that the duty be reduced. The other members of the committee who attended the hearing included Dr. Hugh P. Baker, secretary of the American Paper & Pulp Association, and Charles F. Shirley. The other two members of the committee who were not present were Charles A. Gordon and Walter D. Randall.

Included among the other witnesses before the commission were Henry Derby, of Kalbfleish Corporation, New York City, casein importers; Lawrence Ottinger, of the National Veneer and Panel Association, and others. The farm element was represented by John D. Miller, president, and Charles W. Holman, secretary of the National Milk Producers Association, and Albert Manning, also of the association, along with a number of other witnesses.

Cantine Makes Strong Argument

The principal argument before the commission on behalf of the paper manufacturers was made by Mr. Cantine, who told the commission of the hardship which the 2½ cent tariff has worked on the coated paper manufacturers of the United States. He said that the tariff in large measure had to be absorbed by the manufacturers and the price could not be passed on in whole to the consumer.

"Casein is an absolute necessity in the manufacture of coated paper," said Mr. Cantine and continued:

"More than 75 per cent of all casein, domestic and imported, consumed in the United States is used in the manufacture of coated paper and wall paper. There has never been produced in the United States, there is not now produced, and, unless the coated paper industry is destroyed, there is no reason to believe there will ever be enough casein produced in the United States to supply the domestic consumption.

"The effect of the duty imposed by the Fordney Tariff Law of 2½c. per pound was an immediate advance in the price of casein from approximately 8c per pound to 30c per pound."

Mr. Miller, president of the Milk Association, told the commission that casein never reaches the ultimate consumer and he contended that if relief is granted the coated paper manufacturer the inquiry should be made broad enough to cover the tariff on coated and glazed papers so that the ultimate consumer public could obtain cheaper paper. He also told the commission that he thought the testimony should be confined to any changes in the cost of production which have taken place since the tariff bill was written. Mr. Miller further contended that the figures obtained by the experts of the Tariff Commission should be made public at the hearing. Chairman Marvin of the commission said that he would take the requests of Mr. Miller under advisement.

Mr. Cantine, in his testimony said in part:

In order that you may be informed concerning the disastrous effect of the present duty on casein upon the coated paper industry, the following information is respectfully submitted.

Coated Paper Industry's Importance

The manufacturing of coated paper is an important industry in the States of New York, Rhode Island, Indiana, Wisconsin, Michigan, Connecticut, Ohio, Massachusetts, Pennsylvania, West Virginia, Vermont, Illinois, New Jersey, Maine, New Hampshire and Virginia.

The total yearly capacity of the coated paper mills in the United States is 330,000 tons.

Increasing the price of casein by two to four times meant that the coated paper manufacturer was at once faced with greatly increased cost of production. To cover in part this marked increase in cost of producing coated paper, due to constantly advancing price of casein, it was necessary to increase somewhat the price of coated papers, though the increase in price was in no way commensurate with the increased cost of casein to the manufacturer. The result of but moderate increase in price of coated paper has been that many large users of coated paper have discontinued using such paper and have gone onto cheaper grades of paper.

The disastrous result to the coated paper manufacturer of increasing the cost of manufacturing coated paper by increasing cost of casein is that, while the uncoated paper demand is at present normal, the coating mills of this country are now operating on a basis of but 60-65 per cent of normal capacity.

The mills have made every effort to use substitutes for casein, but without success. The consumer demands a casein-coated paper and must have it at a reasonable price or he will go onto uncoated papers.

Domestic Supply Uncertain

As 100 pounds of skimmed milk will yield nine pounds of powdered milk, and even larger quantities of evaporated or condensed milk, it will be seen at once that the value for food purposes of 100 pounds of skimmed milk is much greater than the value of the same amount of milk when used to produce three pounds of casein. The value of skimmed milk as a food for man and beast is generally recognized. To illustrate, France today is not producing casein in quantity for export because the French people realize that skimmed milk is of much greater value for the manufacturer of cheese and other food products.

Owing to the duty on casein, and the resultant high prices of casein, the American manufacturer is no longer able to compete for coated paper business in world markets. Prior to 1922, the American coated paper manufacturers enjoyed a large foreign business in coated paper, whereas the Government Statistics will substantiate the fact that during the last ten months exports of coated paper have almost entirely ceased.

European manufacturers are able to buy casein in the South American market as cheaply as we can buy it and in the absence of

(*Continued on page* 23)

PHILADELPHIA HAS AUGUST FEATURE IN FINE PAPERS

Unless Total Stagnation Sets in Month's Sales in This Branch Will be Highly Satisfactory to the Trade—Coarse Papers Look Up Slightly—Scott Paper Co. Makes Many Improvements—John M. Driver Co. Rebuilding Mechanical Equipment—United Bag and Paper Co. Purchases Gandler Bros.—Ernest G. Snow Prepares to Increase Production of Paper Specialties.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., August 21, 1923.—Fine paper experiences, during the elapsed two-thirds of the month, have been of such character that if the remaining ten days lapse back into complete stagnation, the sum total of the month, both in terms of number of orders and dollars and cents, still would be satisfactory. Nothing like a buoyant, bustling business is being done. July sales considerably exceed those of August but July results no more exceeded July expectations than did August business run ahead of August anticipations.

Printers Increase Fine Paper Sales

During the last week there came out an additional number of the big catalogue and large edition direct by mail advertising pieces which for several weeks have been the subject of very eager competition on the part of the fine paper salesmen and this of course was an element of the increasing activity. Not much can be said of the prices at which the contracts were let and even less of the net profits, the unsuccessful competitors allege that the paper prices were so low as not to admit of profits. But then price cutting at its worst only covered a small percentage of the volume of business being done. Quotations were firmly maintained on the day by day business and this certainly did work up towards larger average amounts than earlier in the year. Not much was heard during the week in the way of complaint over small orders, either because of this growth in their size or because of the educational work done by National Statistician N. A. Schoenbucher in his recent study. The lower priced numbers of book papers and the higher grades of half tone news were most in demand. Coated papers moved rather slowly but bonds of the lower price and medium price were more active.

Slight Improvement In Coarse Papers

The coarse paper market showed during the week a slight improvement general in its character over the mid-month but conditions in this branch of the industry are by no means such as to call forth jubilation. The sluggishness in buying and the softness in quotations of tissues were not improved. A little livelier buying for screenings and silk fibers was noted but it was not sufficient to affect prices which, however, continue steady. Rather notable betterment was enjoyed in building papers due to cooler weather and approach of the Fall season.

Increase of mill buying of all the grades of mixed and common papers made ruling prices generally the outside quotations and, in a few instances, advances were scored. The market is entirely cleaned up of these grades although the better prices which the packers now are able to offer the collectors is tending to bring more stock into the warehouses. Quotation for the better grades and for container manilla are firmly held and advances are imminent or in isolated cases have taken place.

Decrease In Paper Industry Employment

A survey of the employment situation in general industries made by the Industrial Relations Committee of the Philadelphia Chamber of Commerce while, showing an advance in most industrial enterprises, does not give so favorable a report of the paper business. Among the five industries in which there was shown a decrease in employment, the paper trade stood second with a decrease of 8 per cent for the past month the lowest in many months.

Scott Paper Co. Improvements

Completion of the building program inaugurated in the mills of the Scott Paper Company of Chesteer, Pa., during the past year has provided a greatly increased capacity in its production of towels, tissues and allied lines. Improvements in the mill consisted of the erection of a large building extending 250 feet in length and 100 feet in width for the housing of the new Fourdrinier paper machine. The beater room was enlarged by an additional single story building 150 feet by 60 feet. There was also constructed on the mill site a large pulp storage warehouse on a new bulkhead. Shipping facilities were augmented by the construction of a pier extending to a 120 feet docking front with 20 feet of water at mean low tide.

John M. Driver Co. Innovations

Rebuilding of the mechanical equipment of the paper converting plant of the John M. Driver Company, 55th and Hunter streets is now under way in preparation for the resumption of Fall activities. While there has been no actual shut down of the plant, the work is being carried on by the closing of a few machines at a time. In order to take care of the increased business for its glassine products the Driver Company has taken over additional floor space by the lease of the basement providing for 10,000 more square feet to be added to the manufacturing plant. The new floor will be devoted to the storing of finished products and paper stock. The paper finishing department, cutting and embossing equipment will also be removed to the basement. Through the enlarging of the manufacturing plant the firm will be enabled to expand production and there is to be a substantial increase in the manufacture of glassine bags, both plain printed and embossed, in all colors, for confectioners, grocers, hosiery, cigars and sanitary wrappings. By the installation of considerable specially-patented equipment the firm is now provided with machines for production of a variety of glassine bags. Among the newest features now being produced for the holiday trade is a line of holly designed grease proof, vegetable parchment and glassine papers and bond papers decorated with the emblems of Xmas tide.

Ernest G. Snow Installs New Equipment

Further increase in the production of the line of paper specialties made by Ernest G. Snow is to be made in the new quarters recently acquired at 2112 Washington Avenue. Four additional converting machines are to be installed. They will be devoted to the manufacture of towels, tissues, napkins and toilets under the firms own brand "Snow Bird," and distributed to the jobbing trade. The Snow Co. plant also is engaged in the production of special brands for the trade.

United Co. Takes Over Gandler Bros.

Purchase of the former business of Gandler Brothers, 310 N. 10th street by the United Bag and Paper Company has been negotiated. Samuel Gandler and his brother G. Gandler have disposed of their interest in the company to L. Rubin, proprietor of the United Bag and Paper Company, and the four story building occupied by the former has been leased by the latter company. The United Company was located at 3rd and Arch streets, removing there from its West Philadelphia store, where it conducted business as the West Philadelphia Jobbing House under the ownership of Louis Ominsky, who disposed of the business to the present proprietor L. Rubin. M. Glotstein, former manager for the West Philadelphia Jobbing House has taken over the management of the present business and under the new ownership has made expansion in the lines of coarse paper and specialties, twines and bags. Delivery service has been increased and placed under the direction of A.

Paul. Ned Hoffman and Sam Leavy have been added to the sales force.

Schwartz & Co. Expands

An entire building, of five stores, has been taken over by Schwartz and Company, 3 Bank street, the firm having leased the additional three stories of the property it has occupied since its organization five years ago. At that time the business was confined to a single floor where was conducted a general coarse paper and specialty business including, paper tubes, folding and corrugated boxes, toilets, gummed, and building papers, these lines having been increased by the enlarging of warehousing and sales facilities. A full line of Krafts is carried. It is the purpose of the head of the firm, Samuel Schwartz, to add to this line by the taking over of other mill representations in both No. 1 and No. 2 Kraft. Herman Darfinkle and Joseph Goldstein have been added to the sales force.

New Warehouse for Globe Co.

Completion of a new rag warehouse was announced by the Globe Paper and Metal Company, 5601 Vine street. The firm, of which Max Polonsky and Jacob Weiss are proprietors, has constructed its own storage warehouse consisting of a building 20 by 96 feet and two stories high.

New Manager for Japan Paper Co.

The Philadelphia office of the Japan Paper Company, Witherspoon Building, has been placed under new management. Warwick C. Miller, who for the past 18 years has been associated with the company in its New York headquarters as Assistant Treasurer and foreign purchasing representative, has been placed in charge of the local branch. He takes over the duties of Miss Esther Doak, who for the past year has been in charge of the local office, and who resigned a few months ago to be married. The Japan Company has added a new line of stationery specialties imported from Sweden, Italy, and Switzerland, among them being a line of papeteries with tissue lines envelopes, either supplied in boxes or bulk. Thomas N. Fairbanks, President of the company, has returned from a two months' trip through Europe.

Philadelphia News Notes

A line of paper towels and toilet papers has been added to the stock of materials carried by John S. Walker, dealer in hardware, builders supplies, garden tools and kitchen utensils, Germantown avenue and Coulter street. In the future there will be carried the Scott Paper Company products.

A. Hartung and Company, Inc., 506-512 Race street, has added to the lines of box makers papers carried by the firm, the Rotogravure Box Papers, consisting of fancy papers in Egyptian, striped and a variety of special designs as well as standard papers.

Edward D. Hemingway, head of the Hemingway Co., 243 Elbow Lane, paper stock dealers who has been spending some time in Europe has notified Manager Lisle Q. Owens of his intention to return to this country. He stated in a letter to Manager Owens that he was about to sail from Glasgow, last week, expecting to reach his camp Weehoose, on Lake Cathance, Maine, this week where he will remain the balance of the summer. Manager Owens is spending the summer at Ocean City.

A bursting flywheel at the Amboy Paper Company plant in Bridgeport, Pa., caused damage to the engine and other equipment to the extent of $2,000.

Word was received in Philadelphia of the change in the executive body of the National Roofing and Manufacturing Company, with a mill at Cly, Pa. The reorganization resulted in the election of John F. Young as President. He takes the place of C. C. Eastlack.

An importation of 100 tons of high class unglazed Krafts from the Swedish mills arrived during the week on the Steamer Gothland in the port of Philadelphia. It was consigned to the Enterprise Paper Company.

CASEIN DUTY DISASTROUS

(*Continued from page 21*)

an import duty and with lower labor costs can manufacture paper for considerably less than is possible under present circumstances in this country.

Foreign and Domestic Casein Prices

The statistics given below are from the Bureau of Foreign and Domestic Commerce, the Bureau of Markets and Crop Estimates, and from the coated paper manufacturers and the leading distributors of the country:

Year	Actual Average Selling Price Standard Imported Ground Casein	Actual Average Selling Price Standard Domestic Ground Casein
1911	10½c.	10⅛c.
1912	8 9/10c.	8¼c.
1913	9⅛c.	9c.
1914	9¼c.	8⅞c.
1915	9⅜c.	9⅛c.
1916	14c.	13c.
1917	17¼c.	16¾.
1918	16½c.	14c.
1919	15c.	13c.
1920	14c.	13c.
1921	11¼c.	6⅝c.
1922	8½c. to 30c.	8-30c.
1923—1st 6 Months	30-15c.	30-14c.
Present Market Price	16½c.	15½c.

It will be observed from these tables that imported casein has continually commanded higher figures than the domestic due to superior quality, to difficulties of importation with consequent lack of supplies and to uncertainty of assured domestic supply.

One cent per pound advance in the price of casein represents an additional cost of $2.00 per ton, or approximately ⅕c. per pound in the manufacture of coated papers.

Figures from Public Printer

The figures at which the Public Printer in Washington purchases various grades of papers are accepted generally, as representative market prices. The Public Printer on January 31, 1922, purchased single coated paper, two sides, at 8.09 cents per pound. On July 31, 1922, the Public Printer rejected bids at 8.45 cents per pound, and later purchased the same grade of paper at 8.50 and 8.77 cents per pound. On January 31, 1923, the Public Printer awarded bids at 9.09 cents per pound.

The paper upon which the above government prices are given, represents the grade used by the large publishers of the country. This grade of paper equals about 60 per cent of the coated paper produced in the country.

To preserve their industry, the coated paper manufacturers were forced to absorb the additional cost imposed upon them by the advance in the price of casein, with the result that many of the mills actually lost money, in place of breaking even, or making a fair profit on their investment. The manufacturers are facing the ruin of their industry.

The country at this time can ill afford the loss of an industry capitalized at more than $97,000,000, and employing many thousands of people directly or indirectly.

Time for Filing Casein Briefs

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Aug. 22, 1923.—The United States Tariff Commission has announced that it will allow paper manufacturers and others interested in the Casein rate until September 25 to file supplemental briefs. If any of the interested parties desire, an argument will be heard by the Commission in connection with the Casein rates on September 25.

EVERY WEEK SHOWS SLIGHT GAIN IN CHICAGO MARKET

Improvement in Mill Business on Coated Papers Reported—Gumbinsky Bros. Co. Purchases Nineteen Acres of Land for Erection of New $4,000,000 Plant—Julius W. Butler Returns from Europe Where He Says Plants Visited by Him Were Enjoying Fair Activity—Several Other Members of the Trade Return from Their Vacations—Activities of the Chicago Trade.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., August 22, 1923.—Nothing of any significance occurred in the Chicago paper industry during the past week to cause any excitement on the part of either wholesale merchants or manufacturers. As a matter of fact, practically the same conditions prevail now which have marked the trade since the first of August. Occasional spurts here and there make some weeks seem like prosperous ones for individual houses.

July, true to its reputation, proved to be the lowest in the year as the final accounting has evidenced. On the chart of business trends and tendencies for the paper industry, the seventh month truly hit the bottom, or low point. Upon entering into August there was a very slight improvement which continued until the present time. Coarse paper is reported to be experiencing a much healthier demand since the early part of this month. However, it was given out by one concern that July business showed up exceedingly bad and a quickening movement was bound to come. It is running along now as well as can be expected, getting stronger each succeeding week. Without a doubt it will lead right into the fall and winter seasons.

Wholesaler Finds Conditions the Reverse

While the majority of paper houses recite their business conditions precisely as outlined above, there are others whose optimism is keen. Here is the statement from a particular member of the trade:

"July business was exceptionally good for a summer month. The first half of August showed a decided falling off on out-of-stock lines. Mill direct business on the other hand was fair. We believe there will be quite an appreciable gain in out-of-stock business from now on and I anticipate very good fall trade. Prices seem to be holding fairly level. There seems to have been a little weakening in spot tonnage of non-standard book papers with no change of price on standard lines. Machine finish book seems to have the call right now. This is going to large catalog publishers who are getting ready for fall and winter campaigns. There is some improvement in mill business on coated papers. The printing business is noticeably spotty."

Onion Skin Holding Its Own

While fine and coarse papers are having their ups and downs, onion skin has remained almost steady over the summer months. The Empire Paper Company advises that there has been no perceptible let-down in demand at any time. Mills are running to capacity. This is not true in other branches of the paper industry where mills are looking for orders. Printing houses, it is stated, are causing the demand for onion skin.

For newsprint makers, this is a between-season period. The market is reported as being normal because most of this stock is sold on contracts, such contracts being made by the year. The contract season begins about November 1 when also new prices are put into effect based upon operating costs prevailing at the time.

Procures Ground for New Plant

Nineteen acres of ground have been secured for Gumbinsky Bros. Company at California avenue and 31st street. This is the initial step in the erection of a new $4,000,000 paper plant. Title was taken from the Chicago Title and Trust Company as trustee by the Federal Paper Company, which is controlled by the Gumbinsky Bros. Company. The price paid for the lot is reported to be $172,000. The Federal concern is to erect its mill and warehouses on the ground in the near future. Machinery is to cost $1,500,000. A. Epstein has been placed in charge of the building program. The management will be in the hands of the men who have been successful in building and operating the business of the predecessor company, Oscar Gumbinsky, chairman of the board of directors and George Srere, president of the firm.

The Federal Paper Company was formed in 1923 to take over the assets and business of the Gumbinsky Bros. Company which was established in 1880 at Kalamazoo, Mich., with a capital of $3,500,000. In January, 1913, the Chicago plant was organized as a branch of the parent concern at Kalamazoo, with a capital of $50,000. It is engaged in the reclamation of waste materials. Since 1913, the growth of the business has been entirely from reinvested earnings. In no year since its organization has the Gumbinsky Bros. Company failed to operate at a profit. The average earnings in the last ten years have amounted to over 40 per cent on the average capital. Sales for the year ending March 31, 1923 were $3,989,485.12 with net earnings, after taxes and depreciation, of $481,112.96. It is conservatively estimated that with the addition of the new plant the company will do an annual business exceeding $20,000,000 with net profits of approximately $2,000,000. During the year 1922 the company sold and shipped 158,870,000 pounds of waste materials, exclusive of other commodities.

Julius W. Butler Back from Europe

Julius W. Butler, an official of the J. W. Butler Paper Company, one of the largest wholesale paper houses of Chicago, recently returned from a trip to Europe. It was a pleasure trip all the way through and very little of business was permitted to occupy Mr. Butler's time while he was gone. He spent four days in Paris, a week in London and most of the balance of the time on board ship. He went up the coast of Norway and had occasion to take some snapshots of the Midnight Sun.

He visited the paper plant of A. E. Reed & Co., Ltd., at Dartford, England. This plant makes book papers from esparto grass, the supply of which is received from Africa and Spain. This paper is quite a bit lighter than that made from pulpwood. Mr. Butler states that what plants he did visit were running along fairly active.

Activities of the Paper Trade

Irving Esleek, vice president of the Esleek Manufacturing Company, Turners Falls, Mass., was a business visitor in Chicago last week.

Bob Butterworth, of the Champion Coated Paper Company, spent a recent week-end at the company plant at Hamilton, Ohio.

E. A. Rohrer, secretary of the Empire Paper Company, is also just back from an extended vacation in the Wisconsin woods.

Colter Rule, of the Dwight Bros. Paper Company, Chicago, left the other day for a motor trip. His first objective was Cincinnati, Ohio.

W. N. Gillett, vice president of the Chicago Paper Company, is taking a much needed rest at his summer home in Ludington, Mich., and will not return until some time in September.

Two other Chicago visitors last week were Jack Powell, of the Allied Paper Mills, Kalamazoo, Mich., and Mason Olmstead, of the Fox River Paper Company, Appleton, Wis.

The Commonwealth Paper Company, 1530 Newberry avenue, has been incorporated with a capital of $50,000, to wholesale and job wrapping paper, twine and allied products. The incorporators are: J. D. H. Murphy, A. B. Doulin, Molly M. Doulin. Correspondent, J. D. H. Murphy, 1638 W. Lake street, Chicago.

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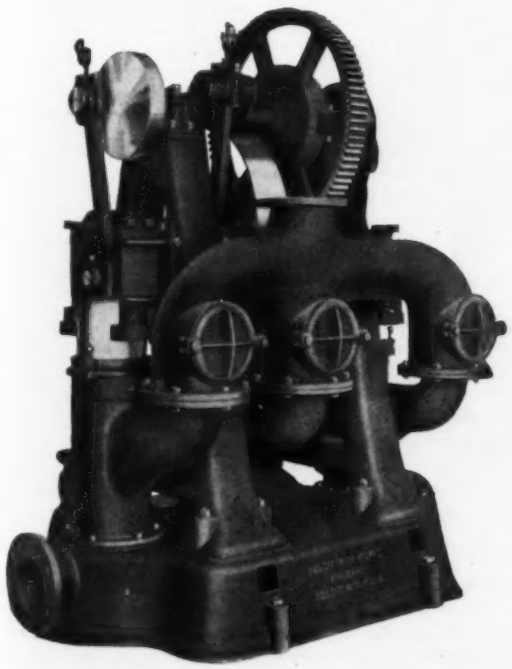
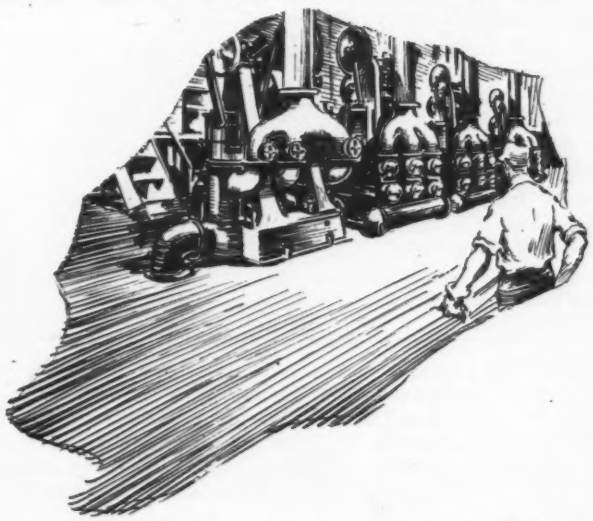
The heavy, sturdy construction insures lasting wear. Simplification of design has been perfected to the point where the fewest possible number of working parts are required. This greatly eliminates repair, wearage and breakage difficulties. If a part becomes worn or broken it is quickly replaced without the necessity of buying practically a new pump.

Send us your specifications.





No. 84—Beloit Discharge Side, Heavy Triplex Stuff Pump

MADE in sizes, 8"x 10", 10"x 10", 11"x 10". SPECIFICATIONS — machine-cut gears, self-oiling guides, forged steel crank shaft, bronze plunger, ball valves and seats; crank-pin boxes, bronze brushed; guides built to take up wear, easy of access; *ring oil bearings* on crank and pulley shafts. Weights vary from 8,000 to 9,250 lbs. without motor. Belt or Motor Driven.

Send Your Specifications to Beloit

Beloit Iron Works **Beloit, Wis., U. S. A.**

WORK OF PAPER EXCHANGE WATCHED WITH INTEREST

Headquarters in Chicago Open and Trading Under the Call-board System Is Being Conducted Daily from 11 A. M. Until Noon—Activities Being Directed by Executive Vice-President John R. Mauff who Secured Leave of Absence from the Chicago Chamber of Commerce to Assume His Duties—He Explains Purposes and Hopes of Exchange—Members of Board of Directors Elected for First Year.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., August 21, 1923.—The Paper Industries Exchange has gotten under way and actual trading is being done under the direction of Executive Vice President John R. Mauff in the Exchange headquarters in the Wrigley Building, from 11 A. M. until noon each day. Trading is being conducted under the call-board system of which the Supreme Court of the United States, in discussing the subject, rendered this decision:

(1) It creates a public market. Before its adoption bids were made privately. Men had to buy and sell without adequate knowledge of actual market conditions. This was disadvantageous to all concerned.

(2) It brings into the regular market hours of Exchange sessions more of the trading "to arrive."

(3) It brings buyers and sellers into more or less direct relations, because in the Fall they gather for a free and open interchange of bids and offers.

(4) It eliminates risks necessarily incident to a private market, and thus enables dealers to do business on a smaller margin.

Director Well Fitted for Task

Mr. Mauff secured a leave of absence from the Chicago Board of Trade to become executive vice-president of the Paper Industries Exchange and in that capacity direct the activities of it. He held the same position on the Board and his many years' experience in trading especially fits him as the leader of the new enterprise. In explaining the purposes and scope of the Exchange, Mr. Mauff says:

"What are the fundamentals of this great public service that can be made of value without trespassing upon the restraint of trade law? For the answer we point to the many commodity exchanges in the world, industries functioning on this system of price determination in a free open market as upheld by the court and quite recently by congressional enactment, sustained by the Supreme Court of the United States.

"The purposes of the Exchange are to establish and maintain an industrial exchange for the allied paper industries; to provide a trading place for its members; to promote uniformity of trade customs and usages; to encourage trading between members by providing expeditious methods for the settlement of trade disputes; to inculcate the principles of justice and equity in trade; to promote fair trading and to discourage disingenuous practices between buyers and sellers; to promote co-operation between producers and buyers in respect to the standardization of products; to establish and maintain definite standards of commodities; to provide a system of inspection and inspection service available to members; to improve labor conditions and relations with labor; to acquire and disseminate market reports and information for the benefit of members; and to effect economies in the development of foreign markets and an increased demand in such markets for American products.

Many Kindred Organizations

"Besides the many examples of commodity trade membership in these United States and their accomplishments, are the Securities Market of London, New York, Paris and Chicago, the Coal Exchange of Cardiff, Wales, and the Rice Exchange of Japan. Herbert Hoover, after his experience with the Grain Exchange system during the world war, declared the Board of Trade of Chicago should be the greatest organization in the world for the economic handling of food stuffs. Sir Herbert Robson, of London, war time food administrator, who had the responsibility of furnishing the food supplies for the armies at the front, in a personal letter to me, stated that the grain business of the entire world is upon a speculative basis and subject to many uncertainties, except in the United States and Canada, where this exchange system of trading prevails.

"This exchange system does away with speculation. Prices are established by buyers and sellers coming together and arriving at the market determination. There would be no incentive to establish these values higher or lower than actual conditions would warrant. The by-laws of the Exchange compel fair dealing and honesty and the carrying out of contracts to the letter. Failure to do this calls for expulsion.

"The Exchange was inaugurated on August 15 with five groups represented: paper board, wax paper, wire cloth, felt and waste paper. Prices established in the manner outlined will at all times be available to the world and they will not be conceived in dark places or in a mysterious manner but out in the open where true light will lead the way to stabilization by the accurate and honest factor of price determination."

Board of Directors Elected

The board of directors has been elected for the first year: Thomas Bauer, of the Lafayette Box Board & Paper Company, Lafayette, Ind., is chairman of the board. The directors have been selected as follows: Edmund N. Huyck, Albany, N. Y.; F. J. Harwood, Appleton, Wis.; F. D. Wilson, Chicago, Ill.; Proctor Patterson, Cleveland, Ohio; R. B. Donnelley, Chicago; Walter P. Paepcke, Chicago; W. S. Goodwillie, Chicago; Peter C. Brashear, Castleton, N. Y.; George W. Gair, New York City; W. I. Osborne, Evanston, Ill.; W. H. Richardson, Glendale, Ohio; W. A. Jack, Grand Rapids, Mich.; H. L. Rauch, Monroe, Mich.; G. H. Wood, Monroe, Mich., and Thomas Bauer, Lafayette, Ind.

New England Foresters Entertained

[FROM OUR REGULAR CORRESPONDENT.]

GREENVILLE, Me., August 22, 1923.—The Great Northern Paper Company has been the host this week of the leading foresters of New England, who assembled at the Grant Farm, 50 miles north of here in the deep woods for the summer field meeting of the New England section of the Society of American Foresters in conjunction with the Penobscot Forestry Club.

Many prominent members representing the pulp and lumber industries, United States forestry service and the general forestry profession throughout Canada and the eastern states were in attendance. The program was so arranged as to give the guests the opportunity of observing conditions of the northern spruce regions, especially as it is handled from the pulpwood point of view. A trip to the Ripogenus dam which forms one of the greatest artificial reservoirs and storage basins of the east was visited. The mountain climbers among the foresters took a trip to the Spencer mountain, visiting the fire lookout station.

The Grant Farm was a revelation to the foresters who had never visited this section. As stated, it is located in the wilderness, more than 50 miles from an incorporated town, but in a way, it is a settlement in itself. There are more than 25 separate buildings on the farm, which includes a sizable hotel for the Great Northern Paper Company employees traveling to and from the woods camps, a huge garage for the motor trucks that are continually on the road, big stables for the workhorses of the company, and regulation farm buildings.

"We can Speed up our Paper Machines —*without pitching the wire*"

"And what is more we feed the stock directly on to the wire at any speed we find necessary without the use of slices, and we are making, besides, a sheet of uniform thickness."

"It is all due to a new device that we installed a short time ago. It can be adjusted quickly and easily, and so accurate and fine are the adjustments that the sheet can be made uniform over its entire width. Our wires last longer, too, because we eliminated the slices that used to wear them down."

"The new device was easy to install. We put it right in, in combination with the flow box that we had on the machine. It is called the Voith High Pressure Stock Inlet."

This has been the experience of all manufacturers installing the new Voith Inlet. We will be glad to give you full information regarding it. A post card will bring an interesting illustrated pamphlet.

Valley Iron Works Company

Plant: Appleton, Wis.
New York Office: 350 Madison Ave.

Builders of Fourdrinier & Cylinder Paper Machines, Niagara and Holland Beaters, P. A. P. A. Rotary Pulp & Paper Screens, Wolf Chippers, Valley Wet Machines, and other high grade paper and pulp mill equipment.

TORONTO SEES TRADE BOOM IN NATIONAL EXHIBITION

Jobbers Believe Next Week's Big Event Will Stimulate Business Materially—Great Lakes Pulp & Paper Co. Arrives at Understanding with City of Fort William Regarding New Mill Proposition—Foresters Visit Iroquois Falls and See How Radio Can be Utilized in Fire Protection Service—Lawrason-Doughty Ltd. Occupies its New Factory—T. W. McGarry Congratulated.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, August 20, 1923.—Business in the paper line has at last evidenced some improvement and it is expected that it will pick up from this out. August has shown gains so far over July. Jobbers are looking for considerable orders during next week when the Canadian National Exhibition will be in progress and many buyers from out-of-town points will be in the city. Paper mills, outside of news print plants, are only fairly busy. The coated paper plants are doing a very good trade and there have been some readjustment in prices to wholesalers and a better understanding arrived at between manufacturers and distributors in order to eliminate overlapping and confusion. On the average, prices for all grades remain the same. There has been some slight improvement in the printing trade in the number of small orders occasioned by the rush to get out advertising literature before the Exhibition, at which the Interlake Tissue Mills, W. J. Gage & Co. and other paper concerns will make displays.

New Mill to Go Up at Great Lakes

The details between the city of Fort William and the Great Lakes Pulp and Paper Company have been agreed upon. Under a by-law, which must be submitted to the ratepayers for ratification, there will be a fixed assessment of $50,000 in Fort William for a term of twenty years and also a fixed assessment of the same amount for a like period on that portion of the plant located in the township of Neebing and provisions for a piece of the Kaministiquia river frontage are to be made by the city and township. The company binds itself, within thirty days after the execution of the agreement by the municipal cities already mentioned, to proceed with the erection of a plant and equipment to cost not less than three million dollars, one unit of which, the pulp mill, to cost $800,000, shall be completed and ready for operation within one year after the execution of the covenant and the news print mill, to cost not less than $2,200,000, within two years from the same date. The plant is to be capable of producing not less than one hundred tons of news print daily and the requisite amount of ground wood pulp to turn out this quantity of paper. The company will guarantee to employ not less than 600 men. Insurance is to be placed in Fort William and payment is to be made to men in Fort William or in Neebing at the prevailing rate of wages for the same class of work, semi-monthly or oftener. Fort William agrees that power shall be available to the company on the terms of the agreement with the Hydro-Commission and that the company shall have the right to benefit by any lowering of price below the $18 per horse power agreed to, if similar power, under similar conditions, is supplied at a lower cost to other consumers. L. L. Alsted, of Appleton, Wis., is at the head of the Great Lakes Pulp and Paper Company.

Empire Foresters Visit Iroquois Falls

The members of the Empire Forestry Conference, after a trip to Niagara Falls and the Ontario Government Experimental Station and Nurseries at St. Williams, Norfolk county, have left for the western provinces. They paid a visit to the newsprint plant of the Abitibi Power and Paper Company at Iroquois Falls where they were welcomed by R. A. McInnis, mill manager, and other officials of the company, who acted as guides while the visitors were taken through every department of the big industry. Later they boarded flat cars, on which seats had been built, for a run up the railway line where they looked over the logging operations including loading, new spurs, fire protection services, etc. They were also entertained to a shanty lunch.

Use of Radio in Forest Fire Protection

That important progress has been made in the use of the radio as applied to forestry work by the Laurentide Air Service aviators, stationed at Cook's Bay, was given a practical application on the occasion of the visit of the Empire Forestry delegates to Timgami. A report of a forest fire, which had been started in a safe place, was sent to a fire ranging depot by radio from aviators and was heard from the loud speaker at the depot. A speed motor boat was in readiness with equipment and manned by rangers, it was rushed to the scene. The whole demonstration was put on to show the value of radio and air patrol service in fighting bush fires. It was the first time that such an exhibition has been given in forestry work in Canada.

New Paper Box Plant Completed

The factory of Lawrason-Doughty, Limited, at 11 Hamilton street, Toronto, has been completed and the firm has removed from its former premises 122 Church street. The new home of the firm is one story high but provision has been made for adding two stories more when required. Considerable new equipment for the production of paper boxes and cartons has been installed. The paper box business is beginning to pick up. While standard lines are light more attention is being paid to specialties and box board plants are doing a very good trade.

McGarry Receives Congratulations

Hon. T. W. McGarry, of Toronto, president of the Whalen Pulp and Paper Mills, Limited, the pulp mills of which organization are located in British Columbia, recently received the congratulations of his friends on passing his fifty-second milestone. Mr. McGarry, who was born in Lanark County on August 19th, 1871, was for many years a member of the Ontario Legislature for South Renfrew and occupied the important post of provincial treasurer for five years, during which time he first introduced Ontario bonds to the American investing public and was successful in financing for the province during the war. Mr. McGarry was the first treasurer to introduce the amusement tax in Canada from which Ontario now derives an annual income of over $1,000,000.

Notes and Personals of the Industry

H. G. French, secretary-treasurer of the Allen Paper Company, Toronto, and wife are spending a holiday at Kirkfield.

S. J. Frame, of Toronto, secretary-treasurer of the Canadian Paper Box Manufacturers' Association, has gone on a pleasure trip to England and will be absent several weeks.

J. A. Willoughby, President of the Georgetown Coated Paper Mills, Georgetown, Ont., has departed on a business trip to England.

R. F. Moncrief, manager of the Frontenac Paper Box Company, Kingston, which is a branch of the F. W. Fisher Company, Toronto, was a recent visitor to Toronto and gave an address at the last meeting of the Toronto Carton Club.

I. H. Weldon, President of the Provincial Paper Mills, Toronto, and Mrs. Weldon, who have been spending some weeks in the Old Country and Europe, have sailed for home on the Empress of Britain.

Peter Christie, of the wrapping paper department of the John Martin Paper Company, Winnipeg, spent a few days in Toronto last week on business.

The effects of the Dominion Embossing Company, Jarvis street, Toronto, which went into liquidation some time ago, and in which

(*Continued on page 32*)

Established 1886

Knowledge

EACH generation inherits the cumulative knowledge of the ages.

Nowadays, a man may acquire at his leisure information which took twenty centuries to discover.

Incidentally, our organization has been thirty-seven years in reaching its present state of perfection, yet any manufacturer can secure its services at a minute's notice for the same price or lower than less efficient organizations would charge.

M. GOTTESMAN & COMPANY

—INCORPORATED—

18 East 41st Street

New York, N. Y.

U. S. A.

European Offices:
Stureplan 13,
Stockholm, Sweden.

MERGER TALK IN MONTREAL JUMPS PAPER SECURITIES

Stock of St. Maurice Pulp & Paper Co. and the Laurentide Co. Become Active as Rumor of Contemplated Combine Is Accepted as Fact—Duties of New Commission on Pulp Wood Embargo Outlined—Chicoutimi Pulp & Paper Co. to Build New Mill Next Year—Belgo Canadian Paper Co. Claims Paper Production Record—Report of Statistics of Pulp and Paper Industry.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 21, 1923.—The rumors of the possible merger between paper companies in the Three Rivers district are still responsible for considerable activity in the securities of the companies concerned on the Montreal Stock Exchange, stocks of both the St. Maurice Paper Company and the Laurentide Company having shown an advance in price. It is announced in the local papers here as an undoubted fact that negotiations have taken place between the two companies. The latest rumor is that instead of a merger such as has once before been under discussion there will possibly be a straight purchase by the Laurentide of the St. Maurice property and the price mentioned is $150 per share in cash or the equivalent in Laurentide stock. It is generally conceded that such a move is geographically and economically advisable, and those in close touch with the situation feel that it is inevitable. Its consummation would make Laurentide the dominating factor of the Canadian news print situation, and a close second to its greatest foreign rival.

It is generally conceded among technical men of the pulp and paper industry, that Laurentide needs limits. It has been the general opinion that Laurentide has standing timber sufficient for thirty to forty years to come. This length of time is questioned by many experts who further state that the company has to go further afield for its wood each year with a proportionate increase in costs of production. It is also pointed out that the need for additional limits has been made the more imperative owing to the inroads upon Laurentide's timber by forest fires this year. This leaves no need to search for a motive for Laurentide's desire to acquire St. Maurice and from the market point of view, the future of Laurentide, already nearer to an investment basis than any of the group to which it belongs, becomes pregnant with interesting possibilities in the event of such a deal going through.

It would seem that the fixing of a price for control of St. Maurice would not be, perhaps, the most important or difficult question to be settled. The Union Bag and Paper Company could not, of course, sell out and leave itself unprotected in the matter of pulpwood supply which it has been receiving from the St. Maurice limits, so some sort of an arrangement, probably a long term contract for the supply of pulpwood, would have to be entered into between Laurentide and the U. S. Company. Then there is the always knotty problem of the minority shareholders to settle.

Rumored Price Not Exorbitant

The figure of $150 per share for control of St. Maurice, mentioned in gossip, appears less extravagant in view of the fact that St. Maurice had already been offered $140 per share for control by a local syndicate headed by Newman, Sweezey and Co. As the stock outstanding is a little less than $8,000,000, namely, $7,899,900, it will be seen that at $140 a share the purchase price would be only $11,200,000 and at $150 almost an even $12,000,000. That a price for the stock would hand over to the Laurentide a company in a strong financial as well as industrial position is certain. There is, first of all, no liability for bonds, or preferred stock. Bank loans were $1,000,000 and are less now, but against this item is an inventory valuation of $2,609,000 or over $1,000,000 more. Accounts and bills payable of $471,000 are exactly balanced by accounts and bills receivable; there was cash of $129,000 and a surplus of $668,000. St. Maurice, it is pointed out, would supply over 2,000 square miles of splendid pulpwood limits, in the St. Maurice Valley, to add to Laurentide's 3,000 square miles, part of which is down the St. Lawrence on the Gaspe Coast.

Pulpwood Embargo Commission

The newly appointed pulpwood embargo commissioners are instructed to inquire into and report upon the forest resources of Canada with particular regard to the following points: the extent in each province of wood of various kinds available for pulp; the quantity of wood so available on lands owned by the provincial governments and subject under provincial laws and regulations to restrictions requiring the partial or total manufacture of such wood in Canada; the quantity of wood so available on lands owned by the Dominion Government, and subject under federal laws and regulations to restrictions requiring partial or total manufacture in Canada; the quantity of each wood on other lands and the conditions under which such lands are held whether by ownership or lease, whether by corporations or individuals, whether by citizens of Canada or other countries; the quantity of pulpwood produced in each province of Canada during the past ten years showing the portion used in Canada and the portion exported; the question of the prohibition or restriction of the export of pulpwood from Canada; any other matter touching upon the production, manufacture or sale of pulpwood essential to comprehensive consideration of the question of prohibition or restriction of the export of pulpwood from Canada; the making of recommendations that may be deemed expedient for the conservation of pulpwood for present or future use.

Chicoutimi's New Mill Next Year

No steps are likely to be taken by Chicoutimi Pulp and Paper Company for the construction of a news print mill before next year. The company, which operates the largest ground wood pulp mill in the world, is running along on a very satisfactory basis now and is so improving its financial position that the providing of funds for the news print mill will be a much simplified problem when the project goes ahead. The daily production of ground wood is now 470 tons, most of which is sold under long term contracts to the Becker interests in England, at a price which allows a profit of $10 per ton above cost, including charges. Very little progress is being made on the plan for a railway line to bring in pulpwood from the company's limits of the Peribonka River to Chicoutimi. It now seems possible that this project will be abandoned. A suggestion has been made that the construction of a flume to carry the wood over a gap of six miles would serve instead of the railway construction.

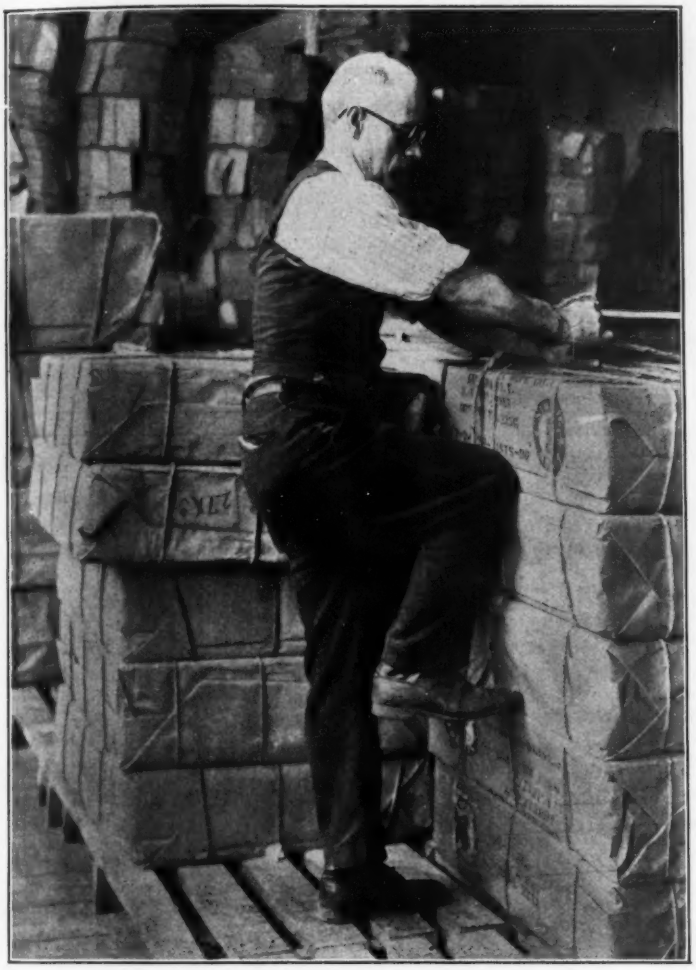
Train of Paper Every Day

The Abitibi Power and Paper Company is sending out a train load of paper every day, running about 20 cars or nearly 500 tons of paper a day from its plant to various American points. This special train is the fastest thing over the Temiskaming and Northern Ontario Railway.

Belgo Canadian Paper Co. Claims Record

The crew of the No. 5 paper machine of the Belgo Canadian Paper Company, Limited, at Shawinigan Falls, Quebec, claims to have the world's record for a single day's production of news print paper. This, of course, means the world's record for any grade of paper, and their figure, which was reached last week, was 96.11 tons. The above record was made on the machine recently supplied the company by Charles Walmsley Company, Limited, and driven by the Harland Interlock Electric Drive.

(*Continued on page* 34)



You Buy "Proven Dependability" When You Buy Columbian Twine

By Invitation Member
Emblem of BUSINESS CHARACTER
Rice Leaders of the World Association
Represents High Standing in NAME - PRODUCT - POLICY

Columbian Twines are the paper manufacturers' favorites. Their uniformity and dependability coupled with extreme strength and full yardage make for genuine economy. Their smoothness is a delight to the hands and facilitates quick work. They are particularly noteworthy for their resistance to "cutting-in" at the knot, which is the acid test for any twine.

Let Columbian Twines keep *your* packages intact during the rough handling they are bound to get in transit, for when you buy "Columbian" you buy proven dependability and service. Complete stocks of all sizes and kinds from fine twines to heavy tube-rope are immediately available.

If your jobber can't supply you, write or wire our nearest branch office.

Columbian Rope Company

342-60 Genesee Street

Auburn, "*The Cordage City*" N. Y.

Branches:— New York Chicago Boston Houston

New York Trade Jottings

Emanuel Salomon has brought to a close his connection with the Emanuel Salomon Corporation, dealers in paper mill supplies, 300 Madison avenue. The concern retains his name but will be under the supervision of Harry Rosenberg. Mr. Salomon's resignation took effect on August 14.

* * *

The Interstate Commerce Commission will hear the complaint filed by the National Association of Waste Material Dealers, Inc., against the Lackawanna Railroad on September 17. The association wishes to compel the railroad to accept shipments of waste paper and rags at its pier stations in New York City.

* * *

On Saturday Mr. Thomas W. Ross, of Hummell & Ross Fibre Corp., former president of the U. S. Pulp Producers Association, sailed for Europe with his wife and son. Mr. Ross will land in Germany but will proceed immediately to Sweden and Norway. If conditions permit on his return southward Mr. Ross will visit mills and manufacturing plants in Germany. His plan now is to spend the winter in Southern France and return to the United States in the Spring of 1924.

* * *

Alfred J. Moran, for a number of years manager of E. B. Thomas & Co. Inc., dealers in paper mill supplies, has announced that he is entering business for his own account under the name of A. J. Moran & Co., Inc., and will be located at 100 Hudson street, New York. His telephone numbers are Walker 5426-5427. Mr. Moran has a host of friends among the packers and dealers in rags and paper stock, and is the president of the Waste Merchants Association of New York and a director of the National Association of Waste Material Dealers, Inc.

* * *

R. S. Kellogg, secretary of the Newsprint Service Bureau, has returned to his offices in the city after an extensive trip through the mills of this country and Canada. He visited Newfoundland among other places and studied the $25,000,000 development which the British Government is backing at Corner Brook. He said that two thousand men are now at work on the new mill and that it is expected to be producing by 1925. Mr. Kellogg also stopped off at the Anglo-Newfoundland Development Company, which supplies paper for the Northcliffe publications.

* * *

On Monday and Tuesday of this week, August 13th and 14th, Mr. Martin Cantine of the Martin Cantine Company, of Saugerties, New York, and Hugh P. Baker, of American Paper and Pulp Association, represented the coated paper manufacturers of the United States at a hearing before the Tariff Commission on an appeal made by the coated paper manufacturers for reduction of tariff on casein. A brief was presented and Mr. Cantine spoke for the Committee. In opposition to the appeal there was a very strong delegation representing various milk producers' organizations. So far as could be ascertained the farmers were not directly represented.

* * *

While in New York recently Hon. Axel Wallenberg, Swedish Minister to the United States, lunched with Hugh P. Baker, Secretary of the American Paper and Pulp Association, and George W. Sisson, Jr., President of the Racquette River Paper Company, and plans were made for a trip by the Swedish Minister through the forests of Maine. Mr. O. M. Porter, Secretary of the Woodlands Section of the American Paper and Pulp Association, was assigned to accompany the Swedish Minister through Maine. On Tuesday last, August 14th, the Minister with Mr. Porter, and with the Deputy State Forest Commissioner of Maine, Mr. Neal Violette, left Bar Harbor for the northern section of the state. The party is made up of Hon. Alex Wallenberg, Swedish Minister to the United States, his son, Mr. O. M. Porter of American Paper and Pulp Association, Assistant Swedish Consul in New York, and Mr. Neal Violette.

* * *

Three secretaries of associations of the paper industry will take part in courses to be given at Northwestern University, known as the National School for Commercial and Trade Executives. Mr. E. H. Naylor, Secretary of Writing, Cover and Tissue Paper Manufacturers' Associations, will talk on "The Function and Activities of Trade Associations." Mr. O. B. Towne, Secretary of the Vegetable Parchment Manufacturers' Association, will talk on "Bureaus of Economic Research in Trade Associations," and Dr. Hugh P. Baker, Secretary of American Paper and Pulp Association, will speak on "Natural Resources and the Trade Association." Following the courses at Northwestern University, Hugh P. Baker of American Paper and Pulp will confer at Madison, Wisconsin, with State Conservation Commissioner Hall, with State Land Commissioner Parker, the State Forester, and others, in matter of a Fall Conference of pulp and paper manufacturers in Wisconsin Valley or northward in Wisconsin the coming Fall. Dr. Baker will then probably visit members of the Association in Northern Wisconsin. These mills have not been visited by a representative of the Association since Dr. Baker became Secretary.

TORONTO TRADE BOOM

(*Continued from page 28*)

many paper houses were creditors, have been sold to J. Jaffe for $9,175.

A. T. Brown, of E. Pullan, waste paper dealer, Toronto, and W. B. Christie, of the Hinde and Dauch Paper Company, Toronto, have returned from a motor trip to New York state and the Adirondacks. They visited the paper mills of Glens Falls and Port Edward en route.

Charles V. Syrett, manager of the Victoria Paper and Twine Company, Toronto, is back from a pleasant vacation spent at Franklin camp. He reports the fishing as being excellent and made several good catches of bass.

The employees of the Fielder Paper Box Company, Toronto, the Automatic Paper Box Company, Toronto, and the Hamilton Paper Box Company, Hamilton, held their annual picnic at Centre Island, Toronto, recently and enjoyed a field day of sports and other amusements.

George Towell has secured a large contract for cutting pulp wood for pulp and paper companies at the Soo and will put in several camps along the Algoma Central railway.

Low Water Closes St. Regis Paper Plant

[FROM OUR REGULAR CORRESPONDENT.]

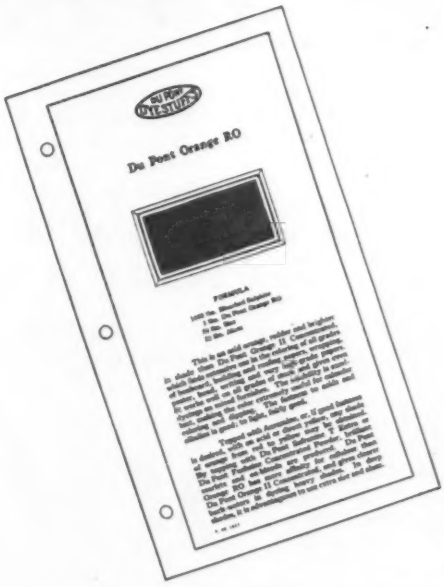
WATERTOWN, N. Y., August 20, 1923.—The big news print manufacturing plant of the St. Regis Paper Company closed Saturday night for a whole week, it was said by Carl B. Martin, secretary of the company. The reason for the shut down is the absence of water flow in the river to produce pulp. The wood pulp and sulphite mills are dependent upon the river flow for power, and conditions in this respect are about the worst on record.

Mr. Martin said that the company mills at Herrings and also at Black River would continue operations. The Hanna mills of the company located at Norwood, Norfolk and Raymondville on the Racquette River, are not suffering acutely because of low water.

The closing down of the Deferiet plant means a great loss to the company. The mill produces 180 tons daily under ordinary conditions. This means that 1,260 tons of news print paper will be lost to the output of the concern.

Other mills all along the river are in very bad shape, and some of them have been forced to shut down temporarily. The flow of the river below Carthage is practically nil Monday mornings on account of the ponds at that village being filled over the week end.

Technical Service to Dyestuffs Users



Dyestuff Bulletins similar to the above are available for every du Pont dyestuff of interest to paper manufacturers. They cover thoroughly the properties of the dye and instructions for its use. Write us for those covering colors in which you are interested.

E. I. DU PONT DE NEMOURS & CO., INC.

WILMINGTON, DELAWARE

STANDARD DU PONT DYESTUFFS UNIFORM

Power Owners Consider Sites

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., August 20, 1923.—Selection of a site for placing another reservoir on the Oswegatchie River for water storage, the method of financing such a project approximating one million dollars, and the plan of control after completion were three problems under consideration at a recent conference of the Oswegatchie River committee of power owners and commissioners.

The comprehensive report of E. S. Cullings, secretary of the Regulating Board of the Black River District, acting as a hydraulic engineer was carefully outlined and explained by Mr. Cullings at the opening of the meeting so as to furnish a technical and practical survey of conditions and recommendations.

Possible reservoir sites considered most feasible by Mr. Cullings in his report were at Wanakena with 2,500,0000,00 cubic feet of water storage; Newton Falls with 3,000,000,000 cubic feet; and Harrisville on the west branch of the river. Another proposal was the small Newton Falls reservoir with 500,000,000 feet capacity to be developed at the same time with Wanakena developing 3,000,000,000 cubic feet of water storage available to power owners at the necessary times.

Opinion expressed tentatively by various conferences was favorable to the large Newton Falls project which Mr. Cullings's technical description proved not only the most feasible but also the most economical terms of power units developed. The major portion of the large power owners on the upper branch of the river were most favorable to selection of Newton Falls as the reservoir site.

Final consideration has been held in abeyance, however, while other phases of the matter are being discussed. Several distinct plans of financing the dam construction were offered for consideration. A. J. Baldwin, president of the McGraw-Hill Publishing Company of New York and also representing the Newton Falls Paper Company, John N. Carlisle, representing the Northern New York Utilities Company and Michael Doyle of Gouverneur, representing the Oswegatchie Light and Power Company were leading figures in the discussion. Other prominent North Country citizens present were: A. J. McDonald of Gouverneur; J. E. Bell and C. O. R. Bell of Ogdensburg, members of the Oswegatchie Power Commission; N. R. Caswell, representative of the Oswegatchie Paper Company; William Carr, representative of the St. Lawrence Transmission Company; Earl Bancroft, representative of the smaller powers and J. R. Bartlett, secretary of the conference.

In order to bring plans to a more concrete stage for another meeting within a month, a resolution was adopted requesting Mr. Cullings to submit a statement showing the proportional physical benefits derived by the power owners from the construction of Newton Falls reservoir of three billion cubic feet capacity. The members of the Oswegatchie River Commission were also instructed to prepare necessary provisions of an amendment to the present legislative act governing water power control so that they may be acted upon and submitted to the state legislature if that course of action is decided upon.

MONTREAL MERGER TALK

(*Continued from page 30*)

Sir Richard Squires, former Premier of Newfoundland, who is now visiting Montreal, says that the big scheme undertaken by the Newfoundland Pulp and Paper Company is proceeding most expeditiously. He remarked: "There are now approximately 2,100 men employed and the progress is quite apparent. The Armstrong-Whitworth Company have brought from England a lot of material and rolling stock, such as dumpcars, which were not available in the island and this is aiding in the progress. The company has also brought out a number of technical men to direct operations. This year the work will be largely concentrated on the power end of the project and to changing the railroad so that it will be clear of the waters of the lake. It is hoped that in November, 1924, the work will be well advanced and that within two years, the process of manufacturing will be a fact. The power development of the plant will amount to 200,000 horse-power or more and a considerable proportion of that will be required for the manufacturing plant which is designed for a production of 400 tons of paper daily."

Power Project on St. Maurice River

Construction work on the St. Maurice Power Company's plant at Gabelle Rapids is progressing rapidly, and it is understood that development is now eight weeks ahead of schedule. Nearly 1,500 men are engaged and it is expected that the first unit of 30,000 horse-power will be ready by the first of next May.

Laurentide's Reforestation

It is stated that the Laurentide Company is now setting out 1,000,000 new trees a year which are grown on its own nurseries, and by 1925 will be setting out 5,000,000 trees a year.

Statistics of the Industry in Canada

A preliminary report on the pulp and paper industry in Canada for 1922, compiled by the Dominion Bureau of Statistics, shows a satisfactory recovery from the unfavorable conditions which prevailed in 1921. The previous year the peak of prices and of production to date brought the net value of the output to $236,420,176. During the reconstruction period of 1921 production fell to $151,003,165. The value for 1922 showed an increase to $155,785,388.

The number of mills in operation in 1922 was 104 compared with 100 in 1921. These were divided as follows:

Pulp only	43
Paper only	33
Pulp and paper	28
Total, 1922	104
Total, 1921	100

These figures show that the paper mills, numbering 61, increased their quantity by 34.1 per cent. over 1921. News print forms about 80 per cent of the paper production in Canada. The total, according to this estimate for 1922 was 1,081,364 tons, valued at $75,971,327, an increase of 34.3 per cent over 1921.

The prophecy is made of the possibility of Canada's news print production exceeding that of the United States during 1923 or 1924, "making Canada the world's greatest producer of news print paper.

The total cut of pulpwood in Canada in 1922 was 3,923,940 cords, valued at $50,735,361. Of this total 74.2 per cent was used in Canadian pulp mills, and the remaining 25.8 per cent, or 1,011,332 cords, valued at $10,359,762, exported in an unmanufactured condition to the United States.

The cut in 1921 was 3,273,131 cords, of which 67 per cent was consumed in Canada and 33 per cent exported.

George Brown Makes Eastern Trip

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., August 21, 1923.—George Brown, formerly connected with the Taggart Brothers Company, but for several years one of the owners of the Raymond Bag Company of Middletown, O., arrived in the city Sunday. Mrs. Brown and their daughter Betty have been with friends and relatives here for two months. They leave Monday night by automobile for Atlantic City where Mr. Brown will attend a convention of his trade before returning to Middletown.

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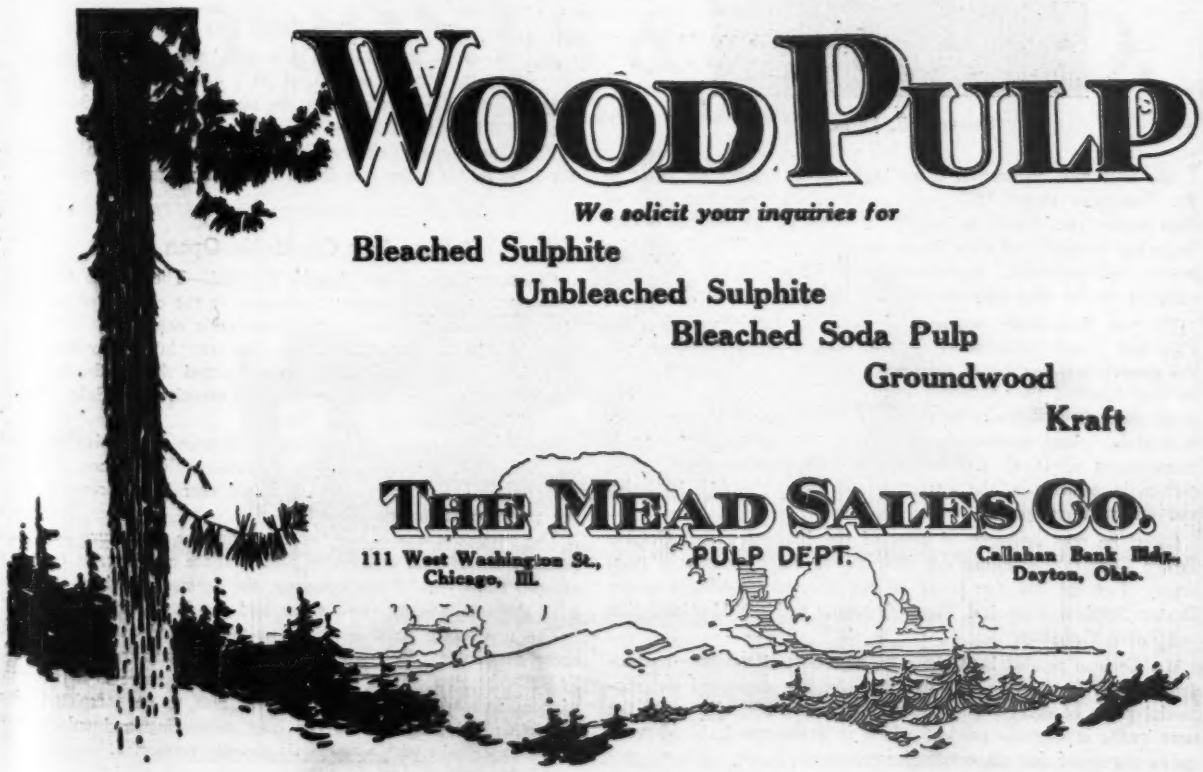

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New Paper Mill for Filer Fibre Co.

FILER CITY, Mich., August 21, 1923.—The Filer Fibre Company of Filer City, Manistee County, Michigan, for the past five years manufacturers of high-grade sulphate (Kraft) pulp, has completed a modern paper mill technically designed by Max Oberdorfer for the making of the highest quality of 100 per cent sulphate (Kraft) paper, with a capacity of 50 tons daily.

Mr. Oberdorfer's reputation as a Kraft pulp and paper manufacturer is too well known to need comment. He ranks among the highest in the country.

Charles E. Duncan has been made manager of sales and is now booking orders for early September delivery.

Mr. Duncan's selection is a most fitting one, as there is no one in the trade today who has had a wider, more successful or practical experience in the development of specialties in wrapping products and kindred lines.

CHARLES E. DUNCAN

His first mill connection dates back for a number of years to the Tarentum Paper Mills of Tarentum, Pa., manufacturers of rope papers, etc. Later, he joined the forces of the Warren Manufacturing Company of New York, manufacturers of rope and jute papers and specialties. In this connection he established many new agencies in the west and broadened their scope of distribution

He was then made manager of sales of the Detroit Sulphite Pulp and Paper Company of Detroit, Michigan, and developed all the special lines for which that mill has been noted. At this time he also handled the Munising product until 1910, when he was made manager of sales of the Marathon Paper Mills of Rothschild, Wisconsin, whose success has been consistent under the splendid management of D. C. Everest, where he brought out many specialties in addition to the attractive and successful line of design and watermarked paper.

Later, he was manager of sales of the Minnesota and Ontario Power Company, handling the 300 tons of daily product in print paper. For the last five years he has devoted his efforts to the Dexter Sulphite Pulp and Paper Company and the Howland Bag and Paper Company.

Mr. Duncan retains both these high-grade and valuable connections where, in addition to other lines, he has developed the successful grade of Ajax Sanitary Parchment in paper, also using the same grade in bags—a product which is grease-proof, blood-proof and water-proof for all practical purposes.

Government Bids and Awards

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Aug., 22, 1923. —The purchasing officer of the Government Printing Office has received the following bids for 160,000 lbs. binders' board, No. 2, 25 x 30—No. 20 Dobler & Mudge, $81.00 per ton f. o. b. Washington; Whitaker Paper Company, $83.90 f. o. b. Washington; Kerr Paper Mill Company, $88.50 f. o. b. Washington; Twin Falls Binders Board Mills, $84.50 cars Washington; C. B. Hewitt & Bros. Inc., $82.50 f. o. b. Jersey City, N. J.; The Westport Paper Company, $78.00 f. o. b. Washington.

The Printing Office also received the following bids for 80,000 lbs. yellow bristol board, 22½ x 28½—100 in 20 in. rolls of approximately 400 lbs. each. R. P. Andrews Paper Company, $.058 per lb.; The Whitaker Paper Company, $.0578 f. o. b. Washington; Carter, Rice & Co., Corp. $.0585; Old Dominion Paper Company, $.0999; Dobler & Mudge, $.0573 f. o. b. Washington; Reese & Reese, $.05245 f. o. b. cars Washington.

The Government Printing Office also received the following bids for 300,000 white envelopes, 3⅝ x 6½, No. 28, O. S. G. United States Envelope Company, $.90 per M.; Union Envelope Company, $1.03, $1.14; Whitaker Paper Company, $1.18, $1.43; R. Carter Ballantyne, $2.30.

Announcement of Awards

The Whitaker Paper Company has been awarded the contract for furnishing 40,000 pounds (56,000 sheets) of 21½ x 32½—No. 70 chip board at $.0255 per pound and the same firm will also furnish 40,000 pounds (40,000 sheets) of 28½ x 34½—No. 50 same at the same price.

The R. P. Andrews Paper Company will also furnish 5,200 pounds (200 reams) of 22 x 34—26 blue writing paper at $.105 per pound. Bids for these items were opened on July 25.

The Osborn Paper Company has been awarded the contract by the Bureau of Supplies & Accounts, Navy Department for furnishing 75,000 rolls of toilet paper for the Mare Island, Cal., navy yard at $8,145.00, bids for which were received on August 14.

Bids Called For

The Government Printing Office will receive bids on August 27 for 58,000 lbs. (1,000 reams) of 38 x 48—58 of Opaque printing paper. Bids will be received on the same date at the Printing Office for 10,000 lbs. of yellow and white, No. 9, Bond paper.

The Government Printing Office will receive bids on August 27 for 1,250 lbs. of white laid deckel edge antique printing paper.

Adams Bag Co. Holds Open House

CHAGRIN FALLS, Ohio, August 21, 1923.—The Adams Bag Company on August 1 tendered a reception to the citizens of this place and the occasion proved a most agreeable one.

On that date The Adams Bag Company informally opened its new office building which had been erected during the past year and which had been occupied by the Executive and Sales Departments of the company since April 1.

But the event was of greater significance than this for, while the plant has been in operation in Chagrin Falls since 1858, this was the first occasion on which it had ever been thrown open to the townspeople for an inspection.

The program was a most entertaining one, a feature being the presentation of gold watches to Dan Wallace and Everett A. Kline, veteran employees of the company, the former of whom has been with the company fifty-two years and the latter, fifty years.

The new office building is an up-to-date and attractive one in every particular. It is a modern fireproof structure, 40 feet wide by 100 feet long. It is two stories high and there is a basement of considerable depth. It is the first unit to be completed of a comprehensive program for the later rebuilding and enlargement of the paper mill with which it is directly connected.

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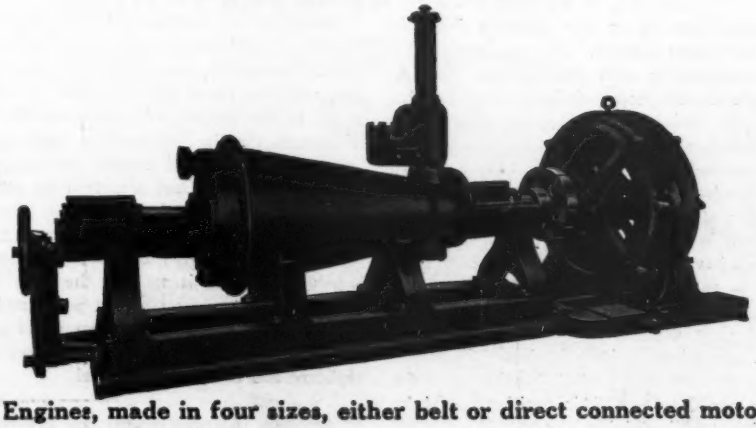

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Mills Issue Strike Manifesto

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., August 21, 1923.—All indications are that a peaceful solution of the firemen's strike is impossible and the paper manufacturers, viewing it in this line, met this morning and voted to resume operations with what help they could muster.

As matters stand at present 60 firemen have thrown out of work for five weeks between 3,500 and 4,000 employees. There have been many cancellations of orders.

The steam engineers voted at their meeting Sunday to stand by their declaration of a week ago that they would not operate their engines by steam raised by non-union firemen. The mills affected, today issued the following manifesto:

"The existing labor situation is one in which the public is particularly interested as it affects them equally with the wage earners and the manufacturers. The paper mills in this district were called upon to give a general increase in wages, which would bring them up to the 1920 schedule. The demand came at a time when there was a great falling off in orders, and the existing and prospective business conditions did not warrant a favorable consideration of the demand. The manufacturers, therefore, decided on account of the reasons mentioned, and because of the further fact that the general wage scale in this section, so far as paper mill employees are concerned, exceeded the wages paid in all other sections of the country, and because of the further fact, that compared with the purchasing value of a dollar the present wage scale was equal if it did not exceed the purchasing power of the dollar in 1920, not to grant this demand.

"Upon receipt of the answer of the paper manufacturers, the Allied Paper Trades Council gave the matter consideration and decided to determine what further action should be taken by taking a strike vote. The result of this vote is well known to the public. They decided not to call a strike, and the public was very much relieved over this wise decision.

"A short time thereafter, the paper manufacturers received a demand from the Stationary Firemen's Union for a wage increase upon the same basis as that which had been made through the Allied Paper Trades Council. In other words, the Stationary Firemen's Union ignored the action of the Allied Trades Council and disregarded the majority opinion as to the advisability of calling a strike.

"Their independent demand was in no way different from the demand made by the Allied Trades Council. The conditions existing among the paper manufacturers with reference to the Stationary Firemen were identical with those existing at the time that the demand was made by the Allied Trades Council. The manufacturers, therefore, were not in a position to give any more favorable consideration to the demands of the Stationary Firemen than they were to the Allied Trades Council and decided not to meet their demands. As a result a strike was called July 17 since which time the mills have not been in operation.

"The paper manufacturers have conceded to the Stationary Firemen the same conditions as to double time for holidays as now given to the papermakers. The position of the manufacturers has been definitely stated and their decision has been supported by known conditions or easily ascertained by investigation. The manufacturers were even willing to enter into a public hearing upon the involved questions because confident that their position would be sustained by the facts and by public opinion.

"A great many of the operatives of the mills have been ready and willing to return to work but have been prevented by the action of the Stationary Firemen. The paper manufacturers have given the Stationary Firemen opportunity to return to their places which offer has been ignored. Their places are still available to them but cannot be held open indefinitely.

With due regard to the rights of our many other employees and the feeling upon the part of the manufacturers that they have given the Stationary Firemen sufficient time to rescind their action, the manufacturers now believe that it is their duty to those employees who wish to return to work, and to the public, to resume operations and to give employment to as many who wish to return to work as conditions will permit.

"Preparations will be made at once for resuming operations with the hope that the Stationary Firemen will decide that the views of the majority employed in the papermills should prevail and that they will return to work at once.

"Employees of this city engaged in the paper mills have been deprived of their weekly payroll of approximately $150,000. The merchants of the city have been deprived of a proportionate amount of business and the manufacturers have been deprived of a considerable amount of business which has gone to other sections of the country where the employees are receiving considerably less wages which are satisfactory to them. The manufacturers will prepare to resume their operations at once, we hope with the assistance of our old employees."

Label Registration Bureau

One of the many constructive things which the Tissue Paper Manufacturers' Association has done has been to establish in the last few years a Label Registration Bureau, at the Association headquarters, 18 East 41st street, New York City.

The multiplicity of labels for toilet paper had become so large and so expensive and so unnecessary a practice that the members decided to reduce, if possible, the many conflicts or similar labels which existed in the market and to concentrate on the best sellers. While there are no restrictions as to the number of labels that any manufacturer or converter of toilet paper may use, still the feeling on the part of all the members is that they are using too many.

The correction of conflicts of these labels was a difficult task because it meant the going back in the history in the use of hundreds of them to determine who had prior right. If a member could show that he had had continuous use of a label for a number of years, he received the right to that label and all those who had copied it or made it since waived their right to it.

Today there are registered at the Bureau at least 3,000 names and designs, and in addition to this list 1,000 have been scrapped. The registration of labels is checked against the Government records.

Whenever a manufacturer or converter in the old days wanted to sell a small lot of toilet paper to a corner grocer that corner grocer wanted his own design and label placed upon the toilet paper, with the result that the seller, in order to get the order, had to go to the expense of making up the design quite often to find afterwards that he had copied a name already in use. This led to an endless amount of trouble and expense for in most instances the design after it had already been made and printed had to be destroyed or only applied to a small purchase of paper.

Now when anyone wishes to get out a new design he writes to the Label Registration Bureau to find out if the name or design is in use, and if it is not then the name is sent to all the manufacturers and converters of toilet paper and 30 days is allowed anyone to protect the use of such name. If no protest is received at the end of 30 days, the name and design are registered in favor of the applicant and everyone is notified.

Appointment for Oliver G. Hall

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Aug. 22, 1923.—Kenneth MacPherson who has been assisting John Matthews, Chief of the Paper Division of the Department of Commerce, has been appointed Private Secretary to Assistant Secretary of Commerce, Walter Drake. Oliver G. Hall has been designated to succeed Mr. MacPherson in the Paper Division. Mr. Hall has had some experience in the paper industry and he will take up his new work about the middle of September.

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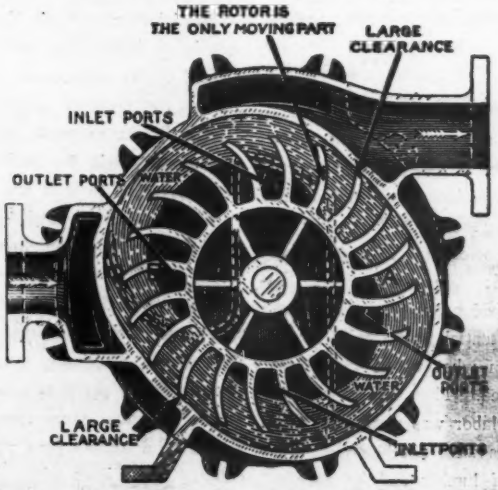

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Editorial

Vol. LXXVII New York, August 23, 1923 No. 8

HENRY J. BERGER, Editor

FOREST FIRES AND THE RADIO

Up in Canada a few days ago, the Empire Forestry Commission was given a demonstration of the practical use to which the radio may be put in connection with the forest fire service. The demonstration was watched with keen interest and experiments along this line will be followed from now on hopefully.

The radio has many possibilities. It has already taken its place in the forefront of modern miracles. But nothing it has done or that it can hope to do will prove a greater boon to humanity than its mere helpfulness in the work of curbing forest fires. If it proves the efficient aid in this direction that many believe it will, that alone will more than justify its existence.

Back in the days when the Indian roamed the forest and held undisputed sway there, except for the intrusion of wild beasts, fire was one thing that his stalwart heart feared. The fury of the element filled his very soul with terror and he fled before the blaze, the power of which he recognized as one too great to be coped with.

When the white man finally came to take his place, to fell the trees and utilize the timber, the forest fire became his greatest dread. Fortunes have been spent to work out means of curtailing the great loss of property due to forest fires. Methods have been studied that would offer something practical to limit the ravages of the conflagration which attacks the great woods. Much has been done to prevent forest fires and to limit the areas over which they relentlessly sweep but still the forest fire remains the unconquerable terror of the big woods.

Here then is an opportunity for the radio to prove itself a boon to humanity. Who knows but that, with its supernatural control of the ether, it may prove the weapon to decisively conquer the foe that man has only partially mastered?

MOTOR POWER IN THE LUMBER INDUSTRY

Those engaged in the lumber industry are rapidly finding motor power an indispensable aid. The industry is today facing an entirely new set of conditions and motor power is solving some of the problems which would otherwise challenge solution.

W. E. Law, manager of the recent Power and Transportation Show, speaking on this same subject, said:

"Wherever lumber is created into finished products, various motor equipment is being recognized as an essential power unit. There was a time in the lumber industry when what would now seem wasteful methods were used and accepted. That was when unlimited forests yielded plenty of lumber; labor was cheap and time not so pressing, while production demands were not heavy.

"But, as with other industries, that of lumber and its various branches today meet a new set of conditions. It is a time when conserving of power—man and machine—of materials, of time and effort is essential to success. This means the required adoption of the mechanical means which are recognized as best from every standpoint of consideration. Tractor power is rapidly growing in popularity in nearly all branches of the lumber industry. In lumber camps the tractor is loading logs and running saws, as well as helping to build roads and keep them open. In mills this efficient power unit with equipment is being put to many uses of hauling and lifting."

THE LATEST STANDARDIZATION MOVE

This is an age that aims at standardization. Pretty much everything has been standardized, is being standardized or, sooner or later, will be standardized. The latest move we have heard of in that direction is the agitation for standardization of the price of eggs.

Edward Brown, president of the International Association of Poultry Instructors and Investigators, in a recent address before the American Poultry Association in convention, declared that the price of eggs would have to be standardized.

Being a frequent buyer of eggs we desire to give our moral support to the campaign to standardize the price of eggs. Let's do it by all means.

The hen would probably resent any effort to standardize the size of eggs or we would endorse that policy in preference to the other. That not being possible we endorse the standardization of the price of eggs as the next best thing.

And, while we are on the subject, let us further express the opinion that eggs are the last thing in the world that should be sold by the dozen. They should be sold by weight just as our porterhouse steak is sold to us. In that case the buyer would have no cause to murmur when he got home and examined the eggs he had purchased and found that they resembled in size birds' eggs rather than hens' eggs. That might be worth consideration on the part of our poultry friends when they get down to real business in devising means and methods of standardizing the price of eggs.

GOOD NEWS

Word has come from Canada that it will be a period of several months at least before the proposed embargo on pulpwood to the United States will be put into effect if, indeed, it is ever enforced. Before the measure which has been causing the industry in the United States so much anxiety can become effective a thorough investigation will be made by a commission which has recently been appointed to look into the matter thoroughly.

A great deal of credit is due to the Committee for the Perpetuation of the Paper Industry in the United States for its good work in calling the embargo to the attention of the whole public. Paper men should also remember that many newspapers and a great many of the citizens of our neighbor to the north opposed the measure as strongly as anyone. They saw as clearly as domestic manufacturers the grave danger of the thing.

One Canadian paper came out flatly and said that the embargo would be a mighty poor return for the generosity shown by this country last winter when there was as much need for anthracite in Canada as there was in this country. We shared alike with them in their need, and the chances are that we should do it again—although both countries hope that the necessity for sharing will never arise again.

Report of American Writing Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., August 21, 1923.—President S. L. Willson of the American Writing Paper Company says in his report to the stockholders for the four months ending April 30, 1923, that incorrect inventory values and some accounts of questionable value had been included in the report for the year ending December 31, 1922. After allowing $300,000 for depreciation the financial statement for the four months quoted shows a loss of $513,241.

President Willson says:

"Upon election as president of your company in April, 1923, an audit was ordered to verify the conditions of the company as shown by the annual statement as of December 31, 1922. The audit discloses incorrect inventory values were used; that obsolete materials had not been written off and that some accounts of questionable value had not been properly considered.

"Herewith is enclosed financial statement as of April 30, 1923, which your management feels satisfied reflects the true condition of the company.

"The present management, after a careful study of the company's affairs and particularly of the future prospects, believes the future success of the company is assured if additional working capital is provided. Plans for securing such working capital are now being considered and will be later submitted to you."

The financial statement as given by the Boston News Bureau follows:

Balance, December 30, 1922		$5,286,402
Adjustments affecting sur. at December 30, 1922:		
Reval. of invent., paper, supplies, etc.	$595,145	
Deferred advert. acct., no value	67,378	
Insuf. res. for cash discount	32,117	
Addit. amount reserved for bad note	8,167	
Rec. for conting. liab. and resultant bad debts	381,085	
Advert. supply account	57,231	
Stationery and printing invent. at December 30, 1922	19,165	
	$1,160,287	
Adjust. of res. for sales allowances	12,210	
Net adjustment		1,148,077
Adjust surplus, December 30, 1922		4,138,325
Sundry expenses charged against prior period		6,667
		$4,131,658
Net loss for the four months ended April 30, 1923, after allowing $300,000 for depreciation		513,241
Surplus, April 30, 1923		$3,618,418

Balance sheet as of April 30 shows total current assets of $6,776,255 and total current liabilities of $3,195,126. There is in addition a deferred liability to the Chase National Bank of New York of $1,080,000 which is secured by $1,944,000 of the company's own treasury bonds. This means a total of $4,275,127 of current liabilities indicating a net working capital of $2,501,128.

J. A. & W. Bird in New Quarters

BOSTON, Mass., August 21, 1923.—J. A. & W. Bird, dealers in casein and satin white, of Boston, Mass., are now occupying spacious new offices at 348 Congress street, having removed from their former place of business at 88 Pearl street.

The new offices are in the same building as their warehouse, an arrangement which they have found to be of great advantage.

The present officers of the firm are: Rex Bird, president; A. E. Regnir, treasurer, and John Regnir, vice president.

Robertson Co. to Operate Tissue Mills

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, August 20, 1923.—The Robertson Company of Hinsdale, N. H., a recently organized paper manufacturing company, will in the future operate the Robertson Tissue Paper Mills in Ashuelot under the name of the new company. The mills, formerly operated under the firm names of Robertson Bros., E. C. Roberton & Son and W. F. Robertson & Co., will be operated as divisions of the new parent company. The new company will make the same products and be under the same management as formerly. The president of the new company will be E. C. Robertson, while W. F. Robertson will be treasurer and general manager.

For the past 103 years the Robertson family has been engaged in the manufacturing of paper in the United States. In 1820 William Robertson, the grandfather of E. C. Robertson, sold his mill in Halifax, N. S., and removed to Putney, Vt., where he made paper by hand. The grandfather raised a family of seven children, among them being John and George Robertson who became prominent and life-long paper manufacturers.

George Robertson was the father of six boys, two of whom died in infancy. The other four boys, Frank W., Endwin C., George A. and Orren C. grew up with the paper industry and became successful manufacturers.

Edwin C. Robertson when 16 years of age entered his father's mill as a worker and was employed in all branches of the practical end of paper making for six years. In 1878 he went to Holyoke and bought an interest in a mill owned by his uncle, John Robertson. Two years later his brother, Frank W., purchased the holdings of John Robertson and the brothers conducted the business for three years, when they sold out.

E. C. Robertson is one of the most widely known men in the tissue paper business. He was president of the National Tissue Paper Manufacturers' Association for eight years.

W. F. Robertson upon finishing his studies at the Massachusetts Institute of Technology in 1903 formed a partnership with his father, E. C. Robertson, erecting the plant of the E. C. Robertson & Son division.

The Robertson Company's product consists of light weight tissue paper, the output in the aggregate being from 60 to 75 tons weekly. A large part of this is sold and converted into toilet paper while a considerable amount is used for various kinds of twisted twines which are used in the manufacture of fiber rugs and various other products.

New Peerless Organization Formed

NORRISTOWN, Penn., August 22, 1923.—The major portion of the machinery, office equipment, trade marks and goodwill of the Peerless Manufacturing Company has been sold to Lewis I. Rossiter, Albert P. Wilson and Isaac J. Sheppard.

The Peerless Company recently announced its intention to liquidate the business to permit the withdrawal of a large financial interest, and it appeared for a time that Norristown was to lose one of its progressive manufacturing plants. Mr. Rossiter, with his associates, has organized a new company, which about September 15th will take over the assets purchased and continue to operate the business as heretofore, giving employment to the same people, many of whom have worked for this company since its coming to Norristown in 1911. Mr. Rossiter stated that various improvements would be made in the methods of work as well as the addition of more modern equipment, which will enable the new company to turn out a greater production as well as a higher grade article.

The real estate of the Peerless Manufacturing Company was not purchased by the new organization. However, pending consummation of a sale of the property and until a new site is obtained the business will continue in the present building at Mogee Station.

Lewis I. Rossiter will head the new concern as president and general manager; Albert P. Wilson will be the new treasurer, and Isaac J. Sheppard will be secretary and manager of sales.

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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G.MacNAUGHTON, Secretary

COMMENTS ON MR. ALEXANDER'S PAPER

The article on "The Cost of Paper Drying," by John E. Alexander, which was published in the July 26th issue of THE PAPER TRADE JOURNAL, was widely read as is evidenced by the letters of comment received in regard to it.—Following are three of the communications which are of special interest.

Thinks Paper Worth While

I have gone over the article by John E. Alexander appearing in the PAPER TRADE JOURNAL, July 26.

There are some things in this article upon which I disagree with Mr. Alexander, but I want to emphasize that I think his paper is worth while. It is only by discussion of this kind that we can get to a little better understanding of some of the problems we are facing.

In the first place, Mr. Alexander states that at Port Edwards and Nekoosa it takes an average of 3 pounds of steam per pound of paper. I would very much like to have seen Mr. Alexander use the figure of steam per pound of water evaporated. This, of course, is the old argument, but I can't see that we can get anywhere unless we are going to adopt that way of figuring.

I analyzed Mr. Alexander's figures in this way. I considered the paper entering the driers 28 per cent dry and leaving the driers with 6 per cent moisture. This would give us 2.36 pounds of water evaporated per pound of paper. A figure I have used a good deal is 1.4 pounds of steam per pound of water evaporated on the driers. Multiply this, however, by 2.36 would give us 3.3 pounds of steam per pound of paper, which is 10 per cent higher than Mr. Alexander figures. Assuming that the amount of water per pound of paper is correct, in order to reach Mr. Alexander's figures we would have to use the figure of 1.3 pounds of steam per pound of water evaporated, which in my opinion is very efficient. Just below that, Mr. Alexander quoting from the October issue of the *Super-Calender* states that one pound of coal will deliver 7,000 B.t.u. in the average boiler and that one kw. is equivalent to 3,415 B.t.u. so that 2 kw. is approximately equivalent to a pound of coal. Mr. Alexander undoubtedly understood the situation clearly, but I think this should be explained a little.

There would be from 10,000 to 14,000 B.t.u. in a pound of coal but the balance of the heat goes up the stack and is radiated. Of course, with an electric boiler, that does not happen. So that while Mr. Alexander is undoubtedly right that from a cost standpoint 1 pound is equal to 2kw. actually, 1 pound of coal is equal in heat value to about 4 kw.

Hard to Check Back Figures

It is rather hard to check back some of the figures, as he does not state the steam pressure he is using. I have assumed steam at 5 pounds pressure, which would be 228° F. and find there is 960 B.t.u. latent heat. To this must be added the B.t.u. required to raise the water in the boiler to steam temperature. I have assumed water entering the boiler at 200° F. which would give us 28 B.t.u. additional or a total of 988 B.t.u. per pound of steam. Dividing this into 3,415, which is the B.t.u. per kw., we would get 3.45 pounds of steam to 1 kw., whereas Mr. Alexander states it will be 2.9 pounds. Of course, if the water came back to the boiler lower than 200° F., this figure would change, but even assuming that the water came back at 172° F., which is quite low, we would then get 1,016 B.t.u. per pound of steam, which would be almost 3.4 pounds of steam per kw.

If I am correct in this, it would change the cost of drying one pound of paper by electric boiler. With electricity based on 1c. per kw.-h., this would give us a figure of $0.0087 instead of $0.01.

The next point is the one that I would question most. Mr. Alexander seems to have simply stated that his electric drier will take one-third less current than the electric boiler. He therefore assumes one-third less current but has simply made this in the form of a statement without proving it, unless in the latter part of his article such proof is given when he states that from a large number of tests with power at ¾c. per kw.-h. it cost $0.0045 per pound.

I notice in his first table he gives a figure of $0.005, which is a little higher than the test figure he quotes. I was interested, by the way, to substitute my figure of $0.0087 instead of 1c. for the cost of drying by electric boiler and taking off one-third of the current, as Mr. Alexander claims, I get a figure of almost exactly $0.0045 instead of $0.005. This practically agrees with the figures he gives in his test. The next figures below, where he gives $0.004 and below it $0.002, does not seem to be based on anything except that he hopes to increase the efficiency of his electric drier to get to that point. He mentioned this in the last paragraph of his article, at least mentioned the first figure and infers that the second figure can be reached. I take it, however, that he has no tests to show that he can reach that figure or in fact, either figure except the belief that he can improve his machine to do it.

Now let us see how much chance he has of improving his machine to that extent. Assuming we are correct that it takes 1.3 pounds of steam per pound of water evaporated and taking our old figure of 988 B.t.u. per pound of steam, it would seem that the electric boiler installation was using 128.4 B.t.u. to evaporate a pound of water. Mr. Alexander's test figure would indicate one-third less than this so that he would be taking 856 B.t.u. to evaporate one pound of water. To check this figure we can use 3,415 B.t.u. per kw. and we then find out that according to his figures it would take 0.6 kw. per pound of paper or 0.6 x 3.415, which is 2,049

TECHNICAL SECTION, PAGE 68

B.t.u. to dry one pound of paper or evaporate 2.36 pounds of water, which would be 877 B.t.u. to evaporate one pound of water.

This figure checks quite closely with the 856 B.t.u. by the other method of calculation so that it would seem that Mr. Alexander is now evaporating a pound of water with between 800 and 900 B.t.u.

Test Figures Most Reliable

In my experience that is an extremely efficient drier and just how he proposes to increase the efficiency beyond that, is beyond me. I think it would be wonderful if he could increase it to the figure he gives of $0.004 but it would be impossible, in my opinion, for him to ever reach $0.002, which is his last figure, since at that time his drier would be approximately 200 per cent efficiency. It does not seem to me, therefore, that he is quite justified in using any figure better than his test figures.

Now as to the efficiency that he claims and which he has discovered in his tests. I don't think that anyone is in the position to make a statement in regards to that unless he knows what Mr. Alexander has been doing. It is possible, in my opinion, to reach that point but it would be very efficient and is not a subject that can be decided offhand by any critic.

The writer believes there is a good deal to Mr. Alexander's theory of using the heat direct instead of through the electric boiler. The objections made, as quoted by Mr. Alexander, that in the first place it would take too much current, I don't believe are borne out by examination.

Assuming that Mr. Alexander has secured as efficient a way of transmitting the heat to the paper as is accomplished by the steam drums, I can see no reason why it should not be more efficient than the electric boiler.

In the first place there are radiation losses from the steam mains which are carried from the boiler to the driers and there is again losses in returning the water to the boiler. Even with a closed system there would be a certain amount of make-up water required and all of this takes heat. On the contrary, Mr. Alexander would transmit his electric power directly to the place where it is to be used, without these losses. Whether that would reach the one-third saving that he makes, is something on which I cannot venture to offer an opinion.

On the other hand, however, it is going to be rather hard to find a way to dry the paper more efficiently than to have the paper in direct contact with the heated surface. If Mr. Alexander is using resistance plates some little distance from the paper, he would get the benefit of radiant heat but would also lose through the insulating effect of a volume of air between the paper and the plates.

If his figures on the test are correct, he must have succeeded in getting at least as good a method of drying as the direct contact and if he has succeeded in that, I can see no reason why it should not be very efficient.

It would seem to me that one of the main problems was the difficulty of performing his work on a commercial scale and while these objections are undoubtedly theoretical, as Mr. Alexander states, yet they cannot be anything else but theoretical unless the people making these objections had gone through the same experiences as Mr. Alexander had gone through and prove that it was not practical.

It is a very interesting paper but I will be interested to know just how he accomplishes such wonderful efficiencies or, on the other hand, why the electric boiler has one-third losses in transmission and return lines.

A MEMBER OF TAPPI

Questions Some Conclusions

Another correspondent writes as follows:

I have read with great interest the article by Mr. Alexander in the July 26 issue of the PAPER TRADE JOURNAL and it does not seem to me that the conclusions are entirely correct. It is somewhat difficult to follow the figures accurately as the conditions under which the comparative tests were made are not stated. The amount of moisture in the paper entering and leaving the driers is not stated nor is the pressure of the steam used given.

It is stated that one kw.-h. applied to an electric boiler will yield 3 pounds of steam. If we assume this to mean 3 pounds from and at 212° F. the heat absorbed in the boiler is about 2,910 B. t. u., corresponding to an efficiency of about 85 per cent. Actually the efficiency of the electric boiler is well over 90 per cent. Results obtained at the mill with which I am connected show efficiencies up to 94 per cent under operating conditions. It is on the low side, I think, to say that 1 kw.-h. will yield 3,200 B. t. u. in the steam.

Mr. Alexander's table of costs may be converted to kw.-h. per lb. of paper as follows:

Cost to dry 1 pound of paper by direct method with electricity at $0.0075 per kw.-h.	Kw.-h. used per pound of paper	B. t. u. used per pound of paper
0.0050	0.666	2280
.0045	.600	2250
.0040	.534	1820
.0020	.266	910

Assume

1. Paper enters driers 30% bone dry
2. Paper leaves driers 91.5% bone dry
3. Paper enters driers at 65° F.
4. Air enters driers at 70° F. and 60% relative humidity
5. Air leaves driers at 120° F. and 80% relative humidity.

Under these conditions the theoretical amount of heat necessary to dry 1 lb. of paper is about 2,660 B. t. u. This figure includes the heat required to warm the exact amount of air necessary to remove the water evaporated without any consideration of the amount of air which the exhaust fans might be removing. If this factor is neglected about 2,200 B. t. u. are required, theoretically, to evaporate the moisture in one pound of paper.

These conditions are fairly typical but of course the actual conditions under which Mr. Alexander's tests have been made may be widely different. It seems, however, hardly possible to dry paper with the application of less than 2,000 B. t. u. per lb. neglecting the heat required to warm the air.

In assuming 3 pounds of steam per pound of paper, or 2,900 B. t. u., to be required under ordinary conditions, Mr. Alexander is conservative, but this figure, as usually obtained, must include the heat absorbed by the ventilating air passing through the machine. As no description of the direct power is given, it is impossible to tell whether the conditions of drying are the same and therefore whether the results given are truly comparative.

The tests show conclusively that the direct method of drying is more efficient than the usual method, but whether the saving which may be effected by its use is as great as is stated seems to me to be questionable.

X. Y. Z.

Drying Paper Electrically

While it is true that 1 kw.-h. will evaporate 3 lb. of water, this of course is in a boiler, either electric or otherwise, designed for the evaporation of water, properly lagged and where radiation losses are kept to a minimum. Losses in such a boiler compared with the losses in a paper machine drier are entirely different.

Instead of using such a formula, I would say it was much better to start off with the assumption that 3 lb. of steam will evaporate 2 lb. of water from the sheet as it passes over the driers. This is the same as saying 3 lb. of steam in the driers will make 1 lb. of commercial paper.

One kw.-h. will generate 3 lb. of steam in an electric boiler. Therefore, things equaling the same thing equal each other, so 1 kw.-h. will be used for 1 lb. of paper, or 2,000 kw.-h. for 2,000 lb. of paper.

While it is reasonably true that 1 kw.-h. will evaporate 3 lb. of water in the boiler, it will not evaporate 3 lb. of water from a sheet

of paper as it is passing over a nest of driers, but will only evaporate 2 lb. under such conditions.

In the recent article certain conclusions are reached based on tests on an experimental machine. Did you make accurate tests of the moisture content of the paper when it went to the driers and when it came off to see that you had 70 per cent moisture in the first instance and 10 per cent moisture in the second? It would also be interesting to know the atmospheric conditions concerning the experimental machine and whether or not they were what you would expect on a large commercial machine. Did you have some outside warm air blowing up through the driers? It is seldom that conditions are the same in an experimental machine as you would expect on a commercial machine and conclusions arrived at are misleading.

In drying paper by means of steam from an electric boiler or any other boiler, the overall efficiency is approximately 66⅔ per cent based on the assumption that it requires 3 lb. of steam for each pound of paper. These losses are made up in transmission losses due to condensation and radiation losses in the pipe lines and the driers. If electricity were applied direct, you would also have transmission losses which would correspond to the pipe line losses which would be somewhat less, of course, but the radiation losses in the driers themselves would be the same as those encountered when steam is used. No mention is made in the article as to the method used in conducting your experimental test and just how direct heat was applied, whether by units inside the driers, but I take it such was not the case and it is hardly possible to comment fully on the article without knowing some more details.

From the figures it would indicate that some sort of a regenerative system had been used as the efficiency of the driers, according to the figures, is somewhat better than 100 per cent.

A. W. W.

Fund for Vocational Education Textbooks

The results of the example and precepts of Nekoosa-Edwards Paper Company and its assistant general manager, B. T. McBain, are shown in the additional contributions to the fund for $5,000 required to complete the textbooks used in the vocational classes and correspondence cources. In most cases the amounts given by paper companies are additions to their previous substantial contributions.

B. D. Rising Paper Co., Housatonic, Mass.	$20
Cornell Wood Products Company, Chicago, Ill.	10
Crocker-McElwain Company, Holyoke, Mass.	60
Federal Paper Board Company, Bogota, N. J.	10
P. H. Glatfelter Company, Spring Grove, Pa.	20
Hammermill Paper Company, Erie, Pa.	40
Millers Falls Paper Company, Millers Falls, Mass.	10
Newton Falls Paper Company, Newton Falls, N. Y.	10
Norwood Engineering Co., Florence, Mass.	25
Oswego Falls Corporation, Fulton, N. Y.	20
Parsons Paper Company, Holyoke, Mass.	20
Pejepscot Paper Company, New York, N. Y.	37
Poland Paper Company, Mechanics Falls, Me.	20
Sherman Paper Company, Inc., Watertown, N. Y.	25
Texas Gulf Sulphur Company, New York, N. Y.	100
Union Screen Plate Company, Fitchburg, Mass.	50
United States Rubber Co., Chicago, Ill.	100

Would Charge Less on Paper Bags

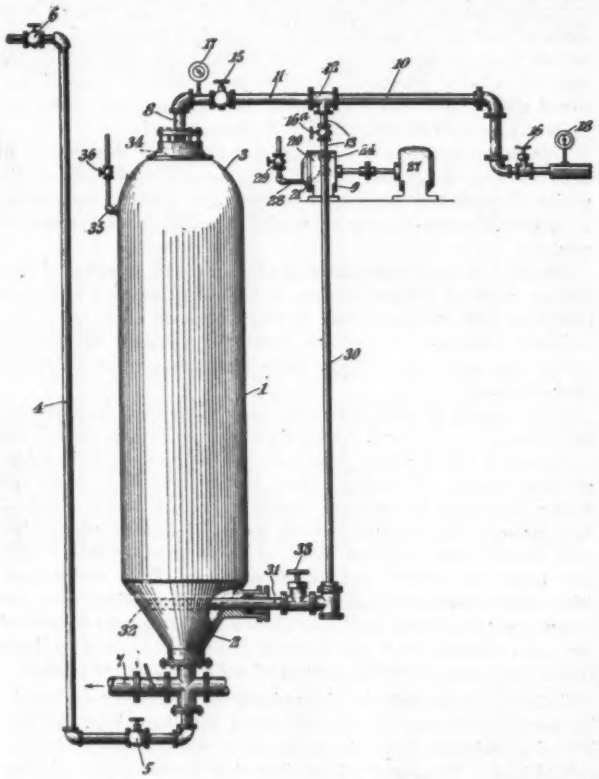
[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Aug. 22, 1923.—A number of transcontinental railroads have filed an application with the Interstate Commerce Commission asking to be allowed to reduce rates on paper bags from Chicago and Western points to the Pacific Coast from $1.30 per hundred pounds to $1.00 per hundred pounds. The reduction is asked by the railroads in order that they may compete with water transportation.

Sulphite Cooking Process

U. S. patent 1,457,326, issued June 5, 1923, to John D. Tompkins, Valatie, N. Y., is one which will be of interest to sulphite engineers, embodying as it does the principle of returning the relief gas to the digester during the cooking process instead of passing it to a recovery tank or tower.

Referring to the patent drawing which is diagrammatic, the steam



APPARATUS FOR COOKING FIBROUS MATERIALS

required for raising the digester temperature is supplied through the steam line 4 and the digester is equipped with top relief 8 and side relief 35.

The top relief line is connected with the bottom of the digester by the line 30 in which is located a pump 9 for the purpose of effecting the introduction of the gas into the digester against the head of its contents.

During the period of dry gas the introduction is claimed to effect circulation within the digester. To heat the gas and maintain the desired digester temperature during the circulation steam is arranged to be introduced through the line 10 passing into the digester through the pump together with the relief gas.

Presumably at the completion of the cook the residual gas is passed by the pump either to another digester or to the recovery system, according to the present practice.

Now Housed in South Hadley

SOUTH HADLEY, Mass., August 20, 1923.—The work of transferring the stock and equipment of the Holyoke Gummed Products Company from the Rackliffe building in Holyoke to their new building on Gaylord street in this town has been completed. The company was forced to erect a larger building to house their industry. It specializes in gummed papers, tape and also printed specialties. About 40 hands are employed.

TECHNICAL SECTION, PAGE 70

TESTING THE STRENGTHS OF PULPS*

A Contribution Towards Standardizing the Methods

By Sindall and Bacon

Standardization in the operation of analysis and testing is an essential function of accurate work. Chemical methods of analysis for all types of material have been exhaustively studied with the idea of evolving standards which in the hands of qualified men would always give results so closely approximating one another as to be practically identical.

This desirable object has been achieved in many departments of daily life and occupation, having as its purpose such cases as the purity of foods and drugs, uniformity in the chemical composition of industrial material, and successful manufacture of commercial products.

Efficiency in such manufacturing processes, and economy of production, with the ultimate creation of high-class goods, is intimately bound up with the same ideal in which common sense as well as technical experience admits the need for standard methods of testing raw material at every stage in its progress towards the finished article.

In the matter of wood pulp such conceptions have been adopted for many years past and I need only mention briefly one or two examples of the attempts, more or less successful, to introduce standard methods of testing. Thus the methods of sampling and testing wood pulp for moisture content have been closely examined by competent authorities; a uniform system of drawing samples has been accepted, and analysts asked to use a fixed procedure with due regard to certain printed regulations. Even under such fairly rigid conditions, considerable variations in duplicate tests are frequent, yet this is not surprising in view of the nature and bulk of the raw material. But the common desire to adopt a uniform system is evidence of the acknowledged value of accurate testing.

Similarly the methods for determining the percentage of bleaching powder consumed by chemical wood pulp have been the subject of considerable research among paper mill chemists and other technologists. Acceptance of the idea that the conditions of testing need to be standardized is the common basis of investigation, and while no rigid method has been officially published, chemists well understand the need for conducting bleach tests under conditions similar to those prevailing in practical mill work. It is somewhat surprising that no standard system has been adopted. The Technical Section research department might take up this matter with advantage. Several well-known members of the Association have published useful data on the subject.

During the last few years the question of the relative strengths of chemical wood pulps has come under notice, and the invitation of your committee to read a paper at the Annual Meeting of the Paper Makers' Association prompted me to bring up this subject for discussion.

In the course of professional practice we have frequently felt the need of some acceptable method of comparing two or more chemical wood pulps in regard to their suitability for making strong papers. The problem presented itself in the form of a somewhat simple question which, however, could not be answered off-hand.

Question 1

In what way is it possible to compare pulps in reference to strength qualities which they can impart to paper?

The importance of this matter can be seen by stating a case. If a pulp A will make a newsprint as strong as pulp B with a lower proportion in the furnish, it may well be regarded as the superior quality, other things being equal. It has a distinct bearing on price, thus:

	A	
70 parts	mechanical pulp at £5	= £350
30 parts	sulphite A at £15	= £450
		£800
	B	
60 parts	mechanical pulp at £5	= £300
40 parts	sulphite B at £15	= £600
		£900

The application of some simple physical control such as a tensile strength or bursting strain test would naturally commend itself to the paper maker as a desirable method, as he is on the lookout for a routine system which can be performed in five minutes by the office boy.

The fact that practically all the pulp imported into Great Britain is in the form of dry sheets at once suggests this kind of comparison and the following table may be quoted as an example of the result of applying a bursting strain test. In this experiment, a number of well-known brands of pulp were tested on the Mullen machine and on an Ashcroft machine. The results do not encourage the idea of making a test direct on the sheet of pulp.

The conditions under which the pulp is manufactured would appear to preclude any reliability on a test of this kind. In the first place the mixture of pulp and water flowing on to the machine wire is of such a character that the fibers are not easily felted together. The sheet consists of *clots* of pulp, so to speak, somewhat loosely associated. The even distribution of the fibers in a uniform manner over the full width of the machine wire could only be effected by the use of enormous volumes of water, and no good purpose would be served by such an impracticable proposal.

Further, the recent introduction of presses producing ribbed pulp has given a material which cannot be tested by simple direct physical methods, since the density or weight per unit area requires special means for accurate measurement.

It appears necessary to reject a direct test on the original pulp for these reasons and to determine by experimental trial the conditions under which a comparison can be made.

Table 1

Showing Mullen and Ashcroft Readings on the Original Pulps as Received.

No.		Weight, G. per sq. metre.	Bursting Strain. Mullen, lb.	Bursting Strain. Ashcroft, lb.	Bursting Strain for 100 G. Mullen.
1	L	740	142	...	19.1
2	K	690	134	...	19.4
3	I	792	131	...	16.5
4	K	623	124	...	19.9
5	S	710	123	...	17.3
6	K	674	120	122	17.8
7	Z	672	110	120	16.3
8	H	570	110	128	19.3
9	L	775	108	...	13.9
10	M	693	105	...	15.1
11	K	730	100	130	13.7
12	R	545	98	119	18.0
13	W	720	95	135	13.2
14	H	527	95	128	18.0
15	E	570	90	112	15.7
16	S	522	85	80	16.3
17	N	575	74	75	12.8
18	V	545	70	104	12.8
19	J	382	60	75	15.7

Abbreviations used in the tables—G, equals grams per square metre as measure of substance. t, equals thickness of sheet in millimetres. B.S. equals bursting strain recorded on Ashcroft machine. BS/G, equals bursting strain calculated to a standard weight of paper 100 grams per square metre.

* Paper Makers' Monthly Journal.

For this purpose trials were made with apparatus of a simple order, available in every paper mill laboratory. The appliances used were as follows: (1) an experimental beater, having a maximum capacity of 100 grams air dry pulp; (2) strainer with fine cut; (3) hand molds 4 x 5 in. and 6 x 8 in.; (4) a heavy hand press.

Question 2

The second question that presents itself is—can sheets of uniform texture be made from the original pulps, after breaking down in water, with sufficient accuracy to enable several observers to get similar results?

In making up fresh trial sheets from the original pulp attention was given to measuring the effect of certain conditions well within control, such as the weight of pulp taken, the volume of water, the method of using the mold, the number of sheets put in the press, the amount of pressure employed, and so on.

The influence exerted by all these factors is considerable, and several pulps were submitted to this test. Of the results obtained we give a typical example in Table 2.

In these experiments the pulp taken was 50 grams in 10 litres of water. The mold measured 4¼ x 5¼ in. This excessive dilution made it possible to impart a shake to the mold and secure a reasonable amount of felting even with free unbeaten pulp. The ratio of pulp to water was maintained fairly constant by allowing the water to drain from the mould into a separate vessel. The variation in substance is not great as will be seen in column G.

TABLE 2

Pulp S. B.S. of Original Pulp 16.3 lb.

No.	Number of Dips	Pressure used	Per Cent Water in Sheets	G	t	B.S.	BS/100G	Bulk
1	2	nil	93.7	404	1.226	10.5	2.6	4.54
1	2	nil	94.3	388	1.422	10.4	2.68	5.5
2	3	slight	84.5	445	1.306	18.0	4.0	4.4
3	4	moderate	79.0	460	1.094	25.0	5.0	3.57
4	5	medium	55.0	450	.724	36.0	8.0	2.41
5	8	maximum	57.0	495	.716	55.0	11.0	2.17
5	16	maximum	45.0	490	.657	59.0	12.0	2.0

The mold was dipped in the vat several times to get a sheet of required weight, as shown by the second column.

One may notice in this test that the standard strength reading is affected by the pressure applied to the sheets after couching, and the number of dips also influence the strength. This latter point is noticeable in the figures for sheets all submitted to the maximum pressure.

Bulk

In the absence of any precise means of measuring the pressure exerted the simple plan of calculaing the bulk of the sample sheet was adopted. Column "Bulk" shows the relation of pressure to bulk. It is clearly essential to make the sheets as smooth as possible before measurement of thickness for bulk calculation. The bulk is the ratio of total volume of the sheet to the volume of fiber contained therein, the volume of fiber being taken as 1.0.

In this connection one may note the proportion of water contained in the sheets after couching, as showing the effect of increased pressure.

A word on the practical making of sheets may be useful. It was found advisable to use the hand mold on a mixture of pulp and water giving as uniform a sheet as possible. In the above table the results have been obtained with a mixture giving sheets of about 450 grams per sq. metre. A ratio of 20 grams of air-dry pulp to 10 litres of water produced sheets of 250 to 300 grams per square metre.

The slight variations in the weight of successive sheets are naturally corrected by calculating all results to some common basis of comparison such as 100 grams per sq. metre.

The experiments showed that the heavier sheets at 450 to 500 grams gave a slightly higher standard BS/100 G. than a similar series made approximately to a weight of 250 to 300 grams, but this point requires extended investigation.

As a matter of laboratory routine, the lighter weight has its advantage in enabling the chemist to work up a smaller sample and in the course of professional practice it is more often the case that only a small sample of pulp is available.

It is important to note that reasonable care in manipulation with the simple appliances used gave sheets which did not show large variations in weight or great differences in bulk when the maximum pressure available on the hand press was applied.

The following table is typical of the several pulps tested:

TABLE 3

Pulp Sv. B.S. of Original Pulp 17.3 lb.

No.	Number of Dips	Pressure used	G	t	B.S.	BS/100G.	Bulk
1	2	nil	262	.676	21.0	8.0	3.98
1	2	nil	260	.665	23.0	8.5	3.83
2	2	slight	240	.470	20.0	8.3	2.93
3	2	moderate	274	.457	38.0	13.9	2.68
4	3	medium	245	.384	39.5	16.1	2.35
5	3	max.	262	.376	53.0	20.1	2.1
6	4	max.	243	.330	60.0	24.6	2.0
7	5	max.	247	.330	62.0	25.1	2.0
8	6	max.	230	.307	60.0	26.0	2.0
9	8	max.	248	.320	66.0	26.6	1.9
10	12	max.	260	.333	71.0	27.3	1.9
11	30	max.	312	.388	87.5	28.0	1.86

Curiously enough after these experiments had been carried out and close relation between *bulk* and the standard BS/100 G. calculated, an instructive article appeared in the February issue of "Pulp and Paper Magazine," by Mr. E. P. Cameron, B.Sc., of the Forest Products laboratory.* Reference must be made to the accurate and exhaustive results obtained. He devoted special attention to the determination of the effect of pressure applied to the sample sheets on the standard strength. Here is a typical case—

TABLE 4

Pulp. Weight Approximately 75 lb. 24 × 36,500 Sheets

Pressure used lb. per sq. in.	Moisture in the Sheets		Weight of paper, lb.	T inches	B.S. points per lb.	** Bulk
	Before	After				
0	...	...	74.5	.014	26.7	4.4
0	...	...	74.5	.014	29.1	4.4
200	74.2	33.4	74.5	.007	46.5	2.2
400	76.6	31.3	72.0	.0065	52.7	2.1
600	74.7	29.6	73.5	.0063	56.5	2.0
800	75.6	28.2	74.5	.0062	57.6	1.9
1,000	78.8	29.5	74.0	.006	60.0	1.9
1,400	75.8	26.4	77.5	.006	63.1	1.8
2,000	...	...	74.0	.0055	73.4	1.7

*The determination of the effect of pressure on the strength of test sheets in the strength testing of pulp.

**Bulk figures added by us. (S. and B.)

The examination of the pulps for strength was extended to include the same samples after bleaching. In each case the strength was considerably and consistently higher and this fact incidentally suggested the advisability of relating the physical and chemical qualities of a pulp.

The order of merit of a series of pulps tested in the manner described is by no means the same as the order obtained by tests on the original pulp. The conversion of the pulp as received into small sheets of regular weight, made under similar conditions offer a better criterion of strength than the tests for bursting strain on the original pulp.

Indeed the prepared sheets show a surprisingly wide range of strength, and in table 6 in which the final comparisons are set out it is evident that tests on the pulps themselves may very well serve as sufficiently approximate to allow of a broad general classification.

The real issue is, however, dependent on the paper making qualities of the pulp as brought out by beating.

Question 3

The third question arising from this investigation may read as follows:

How is the order of merit of a series of pulp made up as

described above affected by the process of beating?

It is clear that the full value of a pulp in terms of its strength qualities can only be developed by the process of beating for the production of a finished sheet of paper, so that it becomes possible to determine what the numerical difference between two pulps really represents in paper making quality.

In manufacturing paper with an experimental beater the conditions may be so varied that it seems almost impossible to devise a standard process of testing. Most of these conditions can, however, be controlled provided the apparatus is kept in good order. Such factors as the concentration of stuff in the engine, the speed of the roll, time of beating, condition of the knives and so on can all be subjected to proper control.

Influence of Time

The *first* trials were made to study the effect of the *time* factor, all other conditions such as weight of pulp, volume of water, beater roll distance being kept constant.

An easy bleaching pulp was used and equal weights (50 grams) taken for each period of time.

A sedimentation test was applied to each lot after beating, to measure the extent of hydration.

A fixed volume of the contents of the beater was made up to 800 cc. with water and placed in a long cylinder filled with a fine wire gauze sieve at the lower end. The time taken to drain off exactly 700 was noted, and the number of minutes recorded as a measure of hydration.

TABLE 5.

Trials with Paper Made from Pulp V.

No.	Time of Beating	Strength of paper BS/100 g		Hydration test. Min.	
		Unbleached	Bleached	Unbleached	Bleached
1	60	81.6	86	105	120
2	45	77.9	85.5	49	56
3	30	69.8	76.1	28	37
4	15	47.9	60	10	14
5	0	5.5	12.8	7	10
6	Mixture 60/30	...	76.0	...	...
7	Mixture 45/15	...	70.6	...	...

As an incidental matter of curiosity, No. 6 was produced by mixing equal weights of the 60 minute beaten pulp and 30 minute beaten pulp in order that its strength might be compared with the trtue hydrated 45 minute beaten pulp. The strength of the mixture was 76 lb. as compared with 85.5 lb.

In a similar manner a mixture was made up of equal quantities of the 45 and 15 minute beaten pulp, and the strength of the paper obtained therefrom worked out at 70.6 lb. compared with the true hydrated 30 minute beaten pulp having a strength of 76.1 lb.

This would appear to indicate that the admixture of an hydrated pulp with pulp subjected to a normal amount of beating would not increase the strength of the mixture to the extent that might be expected, but this is merely a question of the extent to which the pulp is hydrated. The value of hydration induced partly by mechanical means and partly by the addition of chemicals is one of the problems now being studied by Messrs. Ardleter and Cross.

In comparing pulps for strength due regard must be paid to the quality and ultimate use of the pulp. Sulphites manufactured for news print by a comparatively mild treatment and giving a product containing a high percentage of ligneous matter for a class by themselves, while bleaching pulps form another, and strict comparisons can only be made between pulps of the same class.

The first trial with the beating engine used in these experiments proved that the paper making qualities of the pulp were properly developed without undue hydration with a period of 45 minutes beating, and this time was selected as the basis for comparing the pulps in question.

Influence of Bleaching

The *second* trial was made to classify the pulps already tested in order of strength by working up into paper, using the unbleached material, and repeating the experiment after bleaching.

The paper made from the bleached pulp gave the higher strength test just as was the case with the bleached pulp sheet and this again further emphasized the desirability of co-ordinating the physical and chemical qualities of a pulp.

It is evident from this table that the order of merit of the special pulps is only determined properly by converting the pulp into sheets of paper under exactly comparable conditions. It is interesting to see that there is a close relation between the chemical factors and the physical properties of the pulp as measured by the bursting strain test.

The order in which the pulps investigated are arranged according to their bursting strain is the same as the order in which they are placed in terms of the bleach consumption and the percentage of cellulose.

It is evident that the hydration factor plays an important part, and Hatch in his report of the Committee of Standard Methods of Testing Materials given to the Technical Association of America, puts the matter in a suggestive form by pointing out that there are two factors to be considered in dealing with the strength of a sheet of paper, namely, the strength of the cementing action of the fibers to one another due to the hydration effected by beating and the inherent strength of the fibers. Possibly the beating increases the hydration effect but must decrease the actual fiber strength.

At the maximum point of strength these two factors balance one another and if the beating is continued beyond this point the inherent strength of the fiber is decreased, while the strength quality due to hydration is no longer affected.

Influence of Beater Roll Distance

A somewhat casual trial was made to determine the relation between the strength of the beaten paper and the distance between the bed plate and beater roll, clearly an important function of the operation of beating.

The pulp was treated in the beating engine for 45 min. the usual sample sheets produced and tested for Bursting Strain; at a distance of 3 mm. the paper showed a bursting strain of 13.1 lb.; at a distance of 2 mm. 11.6 lb.; at a distance of 1 mm. 11.5 lb. On lowering the beater roll to within 0.3 mm. of the bedplate the strength immediately rose to no less than 56 lb.

In the first three cases the pulp was merely broken up and was

TABLE 6

Showing the Strength of Pulps and Papers calculated to BS/100G

Original Pulps		Physical Tests: Experimental Pulp Sheets				Paper Sheets				Chemical Tests		
		Unbleached		Bleached		Unbleached		Bleached		Bleach %		
Ref.	B.S.									consumed by pulps		Cellulose*
K.	19.4	Sv.	24.9	Sv.	38.7	Sv.	83.3	Sv.	91.5	Sv.	25%	81.1
Sv.	17.3	K.	20.7	W.	30.8	K.	80.7	K.	91.2	K.	25%	81.4
S.	16.3	W.	19.3	K.	30.2	V.	77.9	V.	85.5	V.	12	85.2
M.	15.1	M.	13.6	M.	24.0	W.	66.0	W.	79.8	W.	12	86.7
W.	13.2	S.	11.5	S.	23.7	S.	57.7	S.	73.5	S.	9	87.0
V.	12.8	V.	8.3	V.	20.1	M.	55.0	M.	67.3	M.	9	88.0

*The cellulose figures were obtained by Cross & Bevan's chlorination method.

unchanged without any perceptible hydration or change of quality due to beating but the fourth experiment produced the sudden change from pulp to paper.

It may be a matter of some surprise that the complete paper making quality of the pulp can be developed in an experimental beating engine in the short time of 45-60 min. The diameter of the beater roll is 6 inches and the number of revolutions 280 per minute.

Influence of Dry Condition

Returning to the statement that the English paper maker has to start his operations with an air-dried, and frequently over-dried pulp, reference should be made to some rather surprising figures obtained a few years ago by Edwin Sutermeister of the S. D. Warren Co., U. S. A. It is already known that the maximum strength of a paper is greatest when manufactured from pulp which has never been allowed to become dry before beating. His experiments were made on wet stock received direct from the pulp mill, the same stock air-dried before testing, and finally on the stock after being dried on the steam cylinders of the pulp machine in the usual manner.

The results of the tests made on the pulp and paper sheets made up were as in Table 7.

According to the figures given the paper made from wet stock is practically double the strength of paper made from cylinder dried pulp and this ratio is consistent in the three pulps tested.

TABLE 7

	Wet		Air dried		Steam dried	
	Pulp	Paper	Pulp	Paper	Pulp	Paper
Unbleached A— 1st brand.....	45.3	62.8	18.6	46.1	9.7	37.7
Unbleached B— 2nd brand.....	46.8	74.1	22.1	56.1	10.0	44.8
Bleached— 3rd brand.....	38.5	67.3	15.1	51.7	8.6	38.5

In conclusion—it is impossible to suggest that our results are sufficiently extensive to enable us to lay down precisely the conditions for an exact standard method. It remains to show that the method can be applied to a large number of pulps, and, whether the results obtained would be consistent carried out by a number of observers.

Our main object was to determine whether simple physical tests could be applied to small sheets made from the pulp without the work involved in using the experimental beater, and converting the pulp into paper.

Our experiments seem to indicate that it is necessary to hydrate the pulp and submit it to some beating process in order to bring out fully it paper making qualities.

Investigators on the American side have abandoned the use of an experimental beating engine in favor of a pebble mill and this certainly enlarges the sphere of investigation.

Enough has been said to show that the methods described are sufficiently accurate for broad classification but important experimental work has yet to be done before it is possible to lay down the conditions for accurate testing of the strengths of pulps when small differences become important. The subject is being further studied at our laboratory.

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E. Sutermeister, "A Beating Test for Papermaking Fibres." "Paper," Nov. 10th, 1915.
E. K. Manafield and J. N. Stephenson, "The Effect of Certain Chemicals on the Time of Beating." "Pulp and Paper Magazine," Oct. 1st, 1916.
R. B. Wolf, "Testing Pulp for Color and Strength," "Paper," Nov. 8th, 1916.
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E. Sutermeister "Paper," Dec. 11th, 1918.
E. P. Cameron, B.Sc., "The Determination of the Effect of Pressure on the Strength of Test-Sheets in the Strength-Testing of Pulp." "Pulp and Paper Magazine," Feb. 1st, 1923.

Nipigon Fibre Mills to Be Sold

The Nipigon Fibre and Paper Mills, Ltd., Nipigon, Ont., which have been in liquidation since August of last year, are advertised for sale September 12.

Technical Association Papers, Series VI (1923)

The yearbook is illustrative of the broad scope of the studies carried on during the year by the Technical Association of the Pulp and Paper Industry, including several important phases of waste in the industry, the wood pulp process covering mill control and chemical research, several problems in general as well as special pulp and paper manufacturing, the physical testing of pulp and paper. plant management, industrial education and bibliography of the year's literature on papermaking.

Among the contributors are many prominent executives and engineers of the industry although it is interesting to note the large number of junior members whose names appear as authors.

The volume opens with the very exhaustive report of the Committee on Waste, covering three subjects: White water losses, barking drum waste and the losses due to broke, each of which is separately treated. The report with the discussion on it, contained in the proceedings, will be found worthy of study.

Papers on the manufacturing of pulp and paper are: "Drying and Conditioning of Coated and Other Processed Papers" and "Heat Transference in Machine Room Ventilation," both by J. O. Ross; "Steam Economy in Pulp and Paper Mills," by Edward P. Gleason, and "Anti-Friction Bearings," by George H. Spencer.

Research on chemical pulp processes is dealt with in three papers, one on the soda process and two on sulphite.

Paper drying, one of the subjects of active interest among manufacturers and engineers, is covered by a very complete report containing the results of three tests with the description of the apparatus used in making them, by S. B. Jones and W. F. Goldsmith. Appended to the report is a shortened form of the paper drying code for the use of mills not equipped to make the more detailed analysis but which covers the minimum of items that are considered necessary.

Under paper testing a number of papers deal with different instruments and their results: Mullen bursting strength tester, Elmendorf tearing tester, Schopper folder, Volley size tester, and suggested method for determining the brittleness of paper. One of the most important under this heading is "The Effect of Atmospheric Humidity in the Physical Testing of Paper," by P. L. Houston and H. S. Kirkwood. The investigation was made on 13 different grades of paper from the classes of printing, wrapping and writing papers, under eight different humidity conditions from 15 per cent up to 83 per cent relative humidity. The tests made were moisture content, weight, thickness, expansion, tensile strength, elongation, rupture, folding endurance, tearing resistance and bursting strength, the results of which are given illustrated by curves.

A complete bibliography of papermaking for 1922 by Clarence J. West and A. Papineau-Couture is included as well as a list of the subjects covered by the Committee on Bibliography in the forty contributions it has made since 1917.

Daily Product of Champion Fibre Co., Canton, N. C.

The following data taken from The Log of the Champion Fibre Company are interesting as showing the diversity of the products of the company.

Bleached sulphite pulp	100 tons
Bleached soda pulp	100 "
Bleached sulphate pulp	50 "
Pulpboard	30 "
Paper—wrapping, book, bond, bristol, board	50 "
Lumber	80 M
Lime	50 tons
Coal	1,200 "
Bindex	4,000 gal.
Turpentine	100 "
Tannic acid	500 bbl.
Caustic soda	10 tons

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

Mechanical Pulp

Process of Making Mechanical Wood Pulp. E. F. Millard. U. S. pat. 1,413,180, April 18, 1922.—Same as Can. pat. 215,314, Jan. 24, 1922. See *Pulp and Paper* 20, 888 (Oct. 12, 1922). *Paper Trade J.* 74, No. 20, 54 (May 18, 1922).—A. P.-C.

Studies on Mechanical Paper Technology. F. Bohroff. *Bumazhhnaia Promyshlenost, I,* Nos. 3, 193-212 (Sept.-Dec., 1922). Data are given to show that 40 per cent of the total power consumed in the world's pulp and paper production goes for wood grinding. Even a small saving in the power consumed in the grinding operation would release a large amount of energy for other uses. The factors entering the grinding operation are combined with a mathematical equation depending upon the pressure *n* per sq. cm. of the grinding roll. Giving *n definite* values a curve can be drawn very similar to the one obtained by Kirchner empirically (1) as *Papier III A*, p. 57), proving that the mathematical formula is correct.—M. L. C

Grinding at High Temperatures. Hoyer. *Papierfabr.* 21, 213-216 (Apr. 22, 1923). A general discussion of grinding wood at high temperatures.—J. L. P.

Beating.

Beater. Sigurd Smith. Fr. pat. 549,522. The beater is equipped with two or more bedplates which must be at least 100 to 120 mm. from one another. In the space between the bedplates fresh stock is forced into the spaces between the roll fly bars so as to expose a fresh portion of fibers to the beating action of the next bedplate. (See Smith's article on the "Fibrage Theory" of beating in *Paper Trade J.* 75, No. 26, 47-48, Dec. 28, 1922); 76, No. 1, 49-53 (Jan. 4, 1923); and in *Paper* 32, No. 3, 5-8 (May 9, 1923); No. 4, 5-10 (May 16, 1923).—A. P.-C.

A New Continuous Beater. *Paper Ind.* 5, 339-340 (May, 1923).—Brief enumeration of the merits of the Murphy hollow midfeather continuous beater for mixed waste paper, which, it is claimed, will prevent all foreign matter from entering the stuff chest and eliminate rags, sticks, strings, wire, etc., from collecting in the valves.—A. P.-C.

Process of Beating Fibers for the Manufacture of Paper. Emil Ryberg and P. C. Schaanning. Ger. pat. 375,576. *Papierfabr.* 21, 280 (June 3, 1923). To decrease power consumption and to facilitate beating at a high pulp consistency in a conical mill, compressed air or other gas is added to the mixture of fibers and water before it enters or during its progress through the mill.—J. L. P.

Beating Engines for the Manufacture of Paper. Anon. *Wochel. Papierfabr.* 54, 1041-1044 (Apr. 14, 1923). Brief descriptions, with sketches, of the Karger, Taylor, Hemmer, Acme, Krons, Wrigley, Umpherston, and Golpel types of beaters.—J. L. P.

Pulp Disintegrating Machines. Anon. *Wochbl. Papierfabr.* 54, 1239-1241 (May 5, 1923). The Hoffsummer and Kirchner centrifugal beaters are sketched and described.—J. L. P.

Device for the Treatment of Pulp Made from Sedges, Grasses and Reeds. Johann J. Gahler. Ger. pat. 374,192; addition to 370,347. *Papierfabr.* 21, 238-239 (May 6, 1923). Blunt beater knives are employed to avoid cutting the fibers.—J. L. P.

Continuous Production of Chloride of Lime. Otto Nydegger. Ger. pat. 370,841. *Papierfabr.* 21, 271-272 (May 27, 1923). Chlorine gas is conducted into an absorption apparatus in which finely divided lime is being stirred. The unabsorbed warm gas is cooled and again put through the absorption apparatus.—J. L. P.

Bleach Studies on Wood Pulps. II. Carl G. Schwalbe and Hermann Wenzl. *Papierfabr.* 21, 268-270 (May 27, 1923). During the bleaching process a considerable quantity of carbon dioxide is evolved, amounting to 0.26-0.28 g. CO_2 per 100 g. of pulp when treated with 1 g. of chlorine. This leads to the formation of $CaCO_3$, consequently a depression of the H. concentration, thus slowly bringing the bleaching process to a standstill. By heating the bleach bath to 30-34° C. and by subjecting the stock to a vigorous movement, the solubility of the CO_2 is considerably decreased, the formation of the deleterious bicarbonate prevented and the bleaching action accelerated. An air blast has only a mechanical effect in that it removes the CO_2.—J. L. P.

Sizing.

Engine Sizing Paper. H. M. Wheelwright. U. S. pat. 1,430,045, Sept. 26, 1922.—Previously boiled soluble modified starch is mixed with rosin size, diluted and mixed with paper pulp in a beater to effect precipitation of the resin in colloidal condition and economize the process with respect to the amount of rosin required.—A. P.-C.

Sizing Composition. W. P. Upham. U. S. pat. 1,392,988, Oct. 11, 1921.—The composition consists of starch hydrolyzed under pressure, rosin soda soap, oil, and clay or satin white.—A. P.-C.

Use of Rosin Size in Paper Making. A. E. Leicester. *World's Paper Trade Rev.: Paper* 32, No. 2, 5-6, 24, 26 (May 2, 1923).—Brief discussion of English practice, bringing out some of the difficulties encountered and outlining methods of overcoming them.—A. P.-C.

Rosin Sizing. J. A. DeCew. U. S. pat. 1,394,610, Oct. 25, 1921.—Five to 15 parts of a melted wax, e. g., paraffin or vegetable oil pitch or hard fat, are mixed with 100 parts of melted rosin to improve the water repellent properties of sizing.—A. P.-C.

Method for the Emulsification of Resin Soap in Water. O. Kamm, assignor to American Writing Paper Co. U. S. pat. 1,415,363, May 9, 1922.—Rosin size containing free rosin is incorporated with water in the proportion required to yield at the operating temperature a practically clear size-in-water emulsion. The emulsion is stable at approximately the boiling point, and can be diluted to an extent by introduction while hot into additional water.—A. P.-C.

Rosin Sizing. J. A. DeCew, assignor to Process Engineers, Inc. U. S. pat. 1,433,124, Oct. 24, 1922.—Rosin for use in sizing paper is incorporated with 5 per cent of rubber by use of a common solvent such as gasoline which is afterwards evaporated.—A. P.-C.

Siging for Paper. J. H. Ryan. U. S. pat. 1,434,227, Oct. 31, 1922.—A thin doughy mixture if formed of satin white, clay and water, ground in a pebble mill, mixed with a usual sizing solution, which may contain casein glue or hydrated starch, and the mixture is further ground together to eliminate all grit.—A. P.-C.

Sizing Paper Stock. J. A. DeCew, assignor to Process Engineers, Inc. U. S. pat. 1,444,956, Feb. 13, 1923.—Filling material such as clay in aqueous suspension is treated with a dilute colloidal aqueous solution of a free rosin size and after thorough mixing of the ingredients they are added to paper stock in a beating engine.—A. P.-C.

Colloid Studies in the Rosin Sizing of Paper. Rudolf Lorenz. *Papierfabr.* 21, 221-225 (Apr. 29, 1923); 229-235 (May 6, 1923); 241-248 (May 13, 1923); 253-259 (May 20, 1923); 265-268 (May

27, 1923); 273-276 (June 3, 1923). (A series of articles to be reprinted later in book form.) A brief monograph on rosin is given, with especial reference to its use for paper sizing. The fundamentals of colloid chemistry are covered as far as they relate to the colloid nature of rosing sizing. The concept of L. Paul, that there is a series of abietic acids with different contents in colloidal water, was confirmed. His conclusion, however, that these hydrate combinations can be treated as stochiometrical constants was not found true. The striking change in the physical nature of dispersed rosin owing to slight increases in temperature is the explanation offered for the sizing troubles incident to operating with hot stock in the beater. When abietic acid-acetic acid solution is cooled, a coarsely dispersed separation does not occur at once, but after an hour a typical colloid is obtained. P. P. von Weimarn's rule, that with extreme concentrations a precipitate occurs in a very finely divided form, and with moderate concentrations a coarse precipitate occurs, was observed with abietic acid hydrosol. Also the crystalline nature of the colloid phase, assumed by von Weimarn, was occasionally recognized. The peptizing action of hydroxyl ions on rosin size was studied, as well as its colloidal characteristics by means of colloid-chemical methods. Sodium resinate soap in water occurs within the limits of the molecular and the colloid states, and only in very concentrated solutions does it assume the emulsoid state. "Free rosin" is identified as a typical suspension collaid with a negative charge. "Size milk" is a free rosin hydrosol, peptized b ythe resinate of hydroxyl ions. Surface tension-concentration curves of rosin size solutions of varying alkali content are sketched and described, and their practical use demonstrated. A very exact control of the manufacture of rosin size can be exercised by means of the drop count test. By these tests, the amounts of total and free rosin in size milk can be determined. Under "dynamics of rosin sizing," the author considers the equilibrium changes occurring in the beater during the sizing process. The precipitating actions of a number of salts on the abietic acid hydrosol are tabulated. With increasing charge on the cation, there is an increase in flocculation intensity; on the other hand, the anions exert a peptizing action. The effect of impurities in the water on sizing is shown. The positively charged aluminum hydroxide acts as an "electrostatic adhesive" with the negatively charged fibers and rosin, thereby producing an isoelectric state.—J. L. P.

Loading, Filling and Coating Materials

Filler for Paper Pulp. E. G. Acheson. U. S. pat. 1,419,951, June 20, 1921.—A filler such as white clay is deflocculated preparatory to mixing it with paper pulp, in order to form a mixture with which rosin size and alum combine.—A. P.-C.

Loading Paper Pulp. F. Reichard. Eng. pat. 177,137, Nov. 24, 1921.—Same as Ger. pat. 349,882. See *Pulp & Paper* 20, 702 (Aug. 17, 1922). *Paper Trade J.* 75, No. 4, 53 (July 27, 1922).—A. P.-C.

Filler for Paper. W. Hoskins. U. S. pat. 1,424,306, Aug. 1, 1922.—Powdered calcium sulphate or clay particles are coated with a calcium soap.—A. P.-C.

Paper Filler. W. N. Kohlins. U. S. pat. 1,390,927, Sept. 13, 1921.—The composition is formed of precipitated magnesium hydroxide calcium sulphate, aluminium hydroxide and slaked lime.—A. P.-C.

Coating Composition of Paper. H. N. Case. U. S. pat. 1.445,387, Feb. 13, 1923.—A paper coating mixture is formed of clay 39 lb., water for the clay 28 lb., gelatin 74 oz., water for the gelatin 15 pt., a 10 per cent caustic soda solution 90 cc., and coloring material, e. g., paranitraniline red.—A. P.-C.

Coated Paper. H. R. Rafsky. U. S. pat. 1,374,112, Apr. 5, 1921.—The surface of the paper is coated with a pigment produced by the interaction of sodium carbonate and slaked magnesian lime in an aqueous medium, and an adhesive.—A. P.-C.

A Fibrous Coating for Paper. Johann Palmen. Ger. pat. 372,870. *Papierfabr.* 21, 227 (Apr. 29, 1923). A fibrous coating is applied to paper by sprinkling fibers on paper which has been coated with an adhesive, as dextrine. The sheet is then pressed and dried by passing between heated rolls.—J. L. P.

Paper Testing

Mullen Test Comparison. F. A. Curtis. *Paper Trade J.* 76, No. 19, 48 (May 10, 1923). Results of Mullen tests on 10 samples of paper by 7 laboratories are tabulated, showing the maximum positive and negative deviations and mean deviations from the average.—A. P.-C.

Report on Schopper Folding Machines. Helen U. Kiely. *Paper Trade J.* 76, No. 19, 45-48 (May 10, 1923).—A report is presented of a co-operative investigation into the accuracy of the machine, tolerances allowable and value of the results in valuating paper. (1) The relative humidity at which the paper is run is the source of greatest error. (2) The error due to papers, machine, and method of operation is less in testing paper cut in the cross-machine direction. (3) A machine tests itself within about 10 per cent as a maximum except in an occasional instance, and wider variations must be attributed to the paper or method of operation. (4) Testing at 45 per cent of 55 per cent relative humidity would probably be preferable to the present practice of 65 per cent. (5) A tolerance of approximately 30 per cent in the cross direction must be allowed, so that the value of the folding number in purchasing paper on specifications is questioned. (6) If a folding number is specified, a tolerance above and below should be allowed. The following recommendations are made: (1) A standard instrument should be decided upon for determining relative humidity. (2) Paper should be tested only in the cross-machine direction and no specification for machine-direction fold should be given. (3) Work should be done on collecting data before and after the paper is tub sized. (4) Work should be done on the folding machine after removing one of the plates, thus giving a single instead of a double fold.—A. P.-C.

Examination of Blotting Paper. G. Dalen. *Mitt. Materialprufungsamt* 5 (1922); *Papierfabr.* 21, 192-196 (Apr. 8, 1923): Blotting paper is tested by passing it between two rolls together with a strip of sized paper containing fresh ink. The two strips, 3 cm. long, come together just as they pass between the folls, the blotting paper being the upper one. The rolls are each 3.7 cm. in length and 3.4 cm. in diameter and the upper one exerts a pressure of 0.6 kg. on the lower. The paper passes through the rolls at a speed of 10 cm. per second. Ink is dropped on the lower strip by means of a burette held 2 cm. above its surface. The length of the blot is measured in mm. Comparison of the usual capillary absorption test, used for blotting paper, with the test just described shows little difference, but the former is more uncertain. Thirty-eight tests are tabulated. (Also in *Wochbl. Papierfabr.* 54, 1304-1306 (May 12, 1923).)—J. L. P.

Standardization

Standardization of Fine Papers. R. E. Rindfusz. American Writing Paper Co., *Paper* 32, No. 1, 7-8 (Apr. 25, 1923).—A discussion of the advantages to both manufacturers and consumers of standardizing paper grades, giving a concrete example of the saving effected by such standardization in the case of the American Writing Paper Co.—A. P.-C.

Analytical Methods

An Improved Method for the Determination of Alpha-, Beta- and Gamma- Cellulose. M. W. Bray and T. M. Andrews. *Ind. Eng. Chem.* 15, 377-378 (Apr., 1923). The authors describe a modified procedure in which the alpha-, beta- and gamma-celluloses are determined volumetrically instead of gravimetrically. One gram of dry Cross and Beven cellulose or sample of pulp is triturated with 25 cc. of 17.5 per cent caustic soda solution till the mass is homogenous, allowed to stand 30 min., and filtered with suction

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Technical Association of the Pulp and Paper Industry
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TECHNICAL SECTION, PAGE 77

through an alundum (porosity R. A. 98) or a Cooch crucible. After the insoluble is sucked practically dry it is loosened with a glass rod and washed, first with 54 per cent sodium hydroxide (50 cc.) and then with about 300 cc. of cold distilled water in small portions. Remove the residue from the crucible, dissolve in about 30 cc. of 72 per cent sulphuric acid, make up to 100 cc. with 72 per cent acid, to a 100 cc. aliquot add 10 cc. of standard potassium dichromate solution (90 g. per liter) and 60 cc. of 72 per cent acid, boil gently for exactly 5 min., cool in ice and titrate the excess of dichromate with standard ferrous ammonium sulphate (159 g. per liter). The dichromate should be standardized against cellulose obtained by the Cross and Bevan chlorination method from sulphite pulp. The filtrate from the alpha-cellulose is diluted to 400 cc. and divided into equal parts. One part is diluted to 250 cc. To a 25 cc. aliquot add 5 cc. of standard dichromate and 60 cc. of 72 per cent acid and treat as above, the result giving the sum of the beta- and gamma-cellulose. Precipitate the beta-cellulose from the other 220 cc. aliquot (diluting to 250 cc. in a volumetric flask), let stand till the precipitate settles, pipette off a 25 cc. aliquot of the supernatant liquid, and treat as in the case of the beta- plus gamma-cellulose determination.—A. P.-C.

Testing and Control Process in Paper Making. M. A. Krimmel. *Paper Trade J.* 76, No. 18, 57-62 (May 3, 1923). A brief outline of the raw material, process, and finished product control tests carried out at the Hammermill plant.—A. P.-C.

Electric Power

Electric Sectional Drive for Paper Machines. W. Stiel. *Wochbl. Papierfabr.* 54, 609-612 (Mar. 3, 1923); 697-698 (Mar. 10, 1923). The first article is a general discussion of electric motors for paper machine drives. In the second, the advantages of poly-motor drive over single motor drive are: greater accessibility, less hazardous, possibility of operation of each individual unit. A brief sketch of the developed of poly-motor drive is given.—J. L. P.

Progress in Paper Machine Sectional Drives in America. W. Stiel. *Wochbl. Papierfabr.* 54, 832-833 (Mar. 24, 1923). Data on 30 electric sectional drives employed in U. S. and Canada are tabulated.—J. L. P.

Methods of Calender Operation. Ernst Blau. *Wochbl. Papierfabr.* 54, 903-906 (Mar. 31, 1923). The development of calender operation from a power standpoint is outlined. Especial mention is made of the use of the electric motor.—J. L. P.

Interstate Commerce Decision

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Aug. 22, 1923.—The Interstate Commerce Commission has handed down a decision in case 13338 of the International Paper Company, against the Director General, as Agent, New York Central Railroad Company, and others. In their syllabus in this case, the Commissioners say:

"Rates on pulpwood, in carloads, from Raquette Lake and Eagle Bay, N. Y., to Corinth, N. Y., during Federal control, found unreasonable. Reparation awarded."

The Commission has also handed down a decision in case 13651 of Grimes & Friedman against the Atchison, Topeka & Santa Fe Railway Company, and others. In their syllabus in this case, the Commissioners say:

"Rates on waste paper, in carloads, from Salt Lake City, Utah, and Denver, Col., to San Francisco, Calif., and from Salt Lake City to Chicago, Ill., found not unreasonable or otherwise unlawful. Complaint dismissed."

Technical Index Ready

Index to Technical Section, for Vol. 75, July to December, 1922, and Vol. 76, January to July, 1923, are available at 10 cents each.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

QUESTIONNAIRE AIMS TO THROW MORE LIGHT ON SUBJECT OF FEDERAL TAXES

The following is a copy of a Questionnaire sent out on August 7 to the members of the Cost Association, designed to obtain data for the preparation of a chart, which will show not only the average tax paid, but also the conditions which caused the tax in any particular case, to be high or low.

The charts will be completed in two weeks from August 30, this being the closing date for the receipt of completed Questionnaires. Copies of the chart will only be sent to those mills which have assisted in its compilation and, of course, the larger the number of replies received, the more useful the chart will be.

In view of the importance of this matter, the Executive Committee of the Association has decided to ask all pulp and paper mills in the United States to co-operate in this work. Kindly cut out this Questionnaire, or make a copy of it, and forward to Cost Association of the Paper Industry, 18 East 41st street, New York City, marking same "Federal Taxes."

The following were among the first replies received:

"We are enclosing herewith the comparative statement for the years 1917 to 1921, both inclusive. We feel that the data you have selected brings out very illuminating facts; for instance, we are very much surprised at our turn-over of inventories in 1920, which really shows in reviewing the past, how much better we did then, particularly on this point, than in 1921. Item (1) shows that in the big years 'Uncle Sam' took one-third of our earnings——"

Questions Put Up to Members

	1917	1918	1919	1920	1921
1. State per cent. of total taxes paid for each year to net taxable income (ignore book income)					
2. State per cent. of total compensation of executive officers to annual sales					
3. Per cent which "Invested Capital," as finally determined, is to annual sales					
4. Number of times inventory was turned, (Divide cost of sales by average inventory)					
5. Per cent which total interest paid is to "Invested Capital," as finally determined					
6. Per cent which net taxable income, as finally determined, is to invested capital					
7. Annual sales, stated in round figures					
8. If returns are made other than on calendar year basis, indicate fiscal date					
9. Do you own the buildings or real estate which you occupy?					
10. Have the figures given above been verified by the Income Tax Department?					
11. State amount of cash discounts allowed to customers for prompt payment					
12. State amount of commissions earned					

(NOTE)—All references to "Net Taxable Income" and "Invested Capital" are made to the latest returns. That is, if amended returns have been filed, or if the figures shown on any returns have been changed by the Bureau, then use the latest.

(NOTE)—To obtain uniformity point of percentages like this:
If ten and two-tenths per cent—10.2.
If one-tenth of one per cent—.1
If three per cent—3.
Be sure to insert decimals.

.....
Name of member sending

.....
Address

COST SECTION

In reference to No. 10, we only recently, just last month had our 1917 accounts reviewed finally by the Government, resulting in an appreciable additional tax, which we have included in our 1917 figures, but inasmuch as other years have not been reviewed, our figures necessarily are not final——.

I think you should sub-divide your compiled report of all mills by comparing those mills that have had a final tax adjustment with one another, and those mills that have *not* had a final tax adjustment with one another. In other words, you will have to make two tabulations of this item to show actual ratio of adjusted taxes.

In your compiled statement of all mills, your final report should point out all the information that is possible, and I think you should show:

1.—The number of corporations reporting.

2.—The number of mills included in these corporations.

3.—The number of machines.

Of course, in order to answer your Questionnaire, it has taken considerable time and effort, yet we want to compliment you,

1.—On the character of questions you have demanded information on,

2.—And to express to you our appreciation for this effort of the Cost Association.

Because it seems to me, that this is going to give more helpful definite advantages for the benefit of the Cost Association, and through this, we believe you will be able to benefit the industry as a whole, because all of the essential data from a taxable standpoint, or capital standpoint, will be brought out in this statement; we are curious to see how this works out with regard to average taxes paid, as compared with our own, and see how it may, under the suggestion made by you, be of benefit to us in this way."

Replies Indicate Great Interest

The name of the writer of this letter is withheld, because there is not sufficient time to obtain his permission to print it.

Other letters have been received regarding this activity, showing very clearly the large amount of interest taken in this subject by the industry in general.

Manufacturers are very cordially invited to co-operate in this work, by answering the above questions and in this manner help to prevent the over-payment of taxes by their industry.

PROPOSED TAXATION OF STOCK DIVIDENDS

By Walter J. Matherly

The flood of stock dividends during the year 1922 reached the high-water mark of more than $2,000,000,000. Since such dividends are non-taxable under the federal income-tax law, a demand has arisen in some quarters for the taxation of corporate surpluses out of which stock dividends are distributed. This demand has found expression in a bill introduced on February 6, 1923, into the fourth session of the sixty-seventh congress by Representative Frear of Wisconsin, proposing a levy on accumulated surpluses or undivided profits and apparently intended to compel corporations to pay out all their earnings every year in the form of cash dividends, making such earnings available for taxation as personal income. Since, according to press reports appearing on March 29, 1923, Mr. Frear and "members of the 'progressive' Republican group in Congress are preparing to fight in the next session for this legislation," perhaps it is worth while to reopen the question of stock dividends and carefully to analyze Mr. Frear's proposal. As Mr. Frear's bill (H. R. 14223) is very short, it may not be amiss to quote the language in full.

Representative Frear's Bill

"Be it enacted that section 230 of the revenue act of 1921 is hereby amended, by adding a new subdivision at the end thereof as follows: (3) in addition to the taxes herein above provided there shall be levied, collected and paid, for each of the taxable years 1917, 1918, 1919, 1920, 1921, 1922 and for each year thereafter on that portion of the net income for any such year of every corporation, not disturbed in the form of cash dividends, a tax upon the amount of such net income for such year in excess of the credits provided in section 236, and a further deduction of $3,000 for such year at the following rates: five per centum of the amount of such excess not exceeding $20,000; ten per centum of the amount of such excess not exceeding $100,000; fifteen per centum of the amount of such excess not exceeding $200,000; and twenty per centum on all of such excess above $200,000: provided, that if any of such undistributed profits are taxed as above provided and the corporation shall have, after the payment of such tax, distributed in money any of the profits upon which this tax has been paid, then the corporation shall be entitled, in its next income-tax return, to a credit upon its tax so returned to the extent and amount of the tax which it has paid under the provisions of this subdivision."

Since this proposed legislation is evidently intended to strike at stock dividends either by taxing the accumulated surpluses out of which non-taxable stock dividends are declared or by forcing the distribution of such surpluses in the form of taxable cash dividends, it is necessary to examine stock dividends very closely and see whether or not they represent total or permanent escape from taxation. Do stock dividends escape their share of the burden of taxation? Are they a species of tax evasion, as some people would have us believe? The answer must be in the negative.

What Stock Dividends Are

To begin with, stock dividends are not real dividends at all. Indeed they are just the opposite of dividends, as the Supreme Court pointed out in the case of Eisner vs. Macomber. They merely represent permanent retention of the profits in the business. They in no way involve a distribution to the stockholders. The shareholders' equity is absolutely unchanged. The asset side of the balance-sheet remains unaffected. Even the total of the liability side retains its original status. The only change is a charge to the surplus account and a concurrent credit to the capital-stock account. The final result is that the stockholder's interest "is simply cut up into a greater number of aliquot parts." While he may have four certificates instead of two, he has no larger interest in the business and no greater claim to corporate assets.

Due to these elementary principles of accounting, stock dividends are correctly held to be non-taxable under the income-tax law. But this does not mean that they are absolutely tax-free nor that they permanently escape taxation. Since shareholders are not subject to normal taxes on incomes from corporate enterprises any way, the only possible evasion is an evasion to the extent of surtaxes. But even this is only partial and temporary, since the federal government taxes corporations directly and since stockholders must pay a tax on capital gains when the stock received as dividends is sold.

That stock dividends only partly escape from taxation is proved by the fact that under the law an income tax is levied directly on corporate concerns. This tax is assessed upon the net income of incorporated companies and represents a flat rate of twelve and one-half per cent. Corporations whose net profits do not exceed $25,000 are allowed an exemption of $2,000, but for those concerns whose profits are in excess of that amount there is no exemption allowed. The tax must be paid whether the net earnings are retained in the business and transferred to the surplus account or distributed to the stockholders in the form of cash dividends. Consequently stock dividends and the corporate surpluses out of which they are declared pass through the door of taxable income once, bearing rather than escaping their share of taxation, and the only evasion that can possibly occur is a partial evasion with reference to surtaxes.

In addition to the flat rate of twelve and one-half per cent on the net income of incorporations, which takes the place of the normal tax of four per cent, up to $4,000 and eight per cent above that amount for individuals and partnerships, there is a federal capital-stock tax imposed on corporations for the privilege of doing business. This tax takes the form of a levy of $1.00 for each full $1,000 of the average fair value of the capital stock for the year preceding the taxable year in excess of the exemption of $5,000. Thus the federal government places not only an income tax but also a capital stock tax on American corporations; and, not content with these taxes, there are those who would impose further taxes.

But even the partial escape of stock dividends from surtaxes is only temporary. When stock received as dividends is sold, it is subject to the tax on capital gains. For example, suppose A buys on January 1, 1921, 2,000 shares of stock in a corporation at a par value of $100, making the total cost of the shares $200,000, and that during the next two years, the company, after paying reasonable cash dividends, builds up a surplus to the amount of $200,000 against these shares. This would make A's stock worth approximately $200 a share or $400,000. Again, suppose the corporation declares on January 1, 1923, a stock dividend of 100 per cent. Instead of 2,000 shares, A would now have 4,000 and the market value of the shares would tend to drop to the original price of $100, the government losing in the process the surtaxes which would have been payable in case the $200,000 had come to him in cash.

Moreover, suppose a month or two after A received his stock dividend of 2,000 shares or 100 per cent, he decides to sell all his stock. He places it on the market and gets $100 a share for the whole 4,000 shares or a total of $400,000. Under the income-tax act, he is assumed to have secured a capital gain and is taxed accordingly. In computing the capital gain, the cost of each share is deemed to be $200,000 (the original cost) divided by 4,000 (the sum of the old and new shares) which equals $50. Since he has sold 4,000 shares, the cost is $200,000. Since he has sold his shares at the market price of $100 each, the total amount received is $400,000. The difference between the cost price and the sales price, or $200,000, represents his taxable capital gains and is exactly equal to the amount originally diverted from personal taxable income. The same method is followed in calculating the capital gains on any portion of the stock which he sells.

Confronted by Two Alternatives

Under the law, what tax is he compelled to pay on such capital gains? He has two alternatives. He can choose the benefit of the twelve-and-one-half per cent tax on net capital gains or he can choose the regular normal and surtaxes. If he chooses the first, he will pay twelve and one-half per cent of $200,000, or $25,000. If he chooses the second, he will pay the normal tax of four per cent on the first $4,000 and eight per cent on the remaining $196,000 plus the surtaxes on the whole $200,000, all of which are equal to $86,800. If he had received the $200,000 in cash dividends, he would have been subject only to surtaxes and would have paid $70,690. Therefore, if he accepts the first alternative, the government loses $61,800 as against the second, and $45,960 as against what it would have collected on cash dividends. If he selects the second alternative, the government secures $15,840 more than it would have collected on cash dividends. Naturally, one would expect A to select the first method; but if he accepts the first, he cannot deduct capital losses, whereas if he accepts the second, he can deduct such losses. Consequently, if he has had any capital losses during the year in which the stock is sold, he will accept the second. But whichever alternative he chooses, his stock dividends come under the income-tax system, bearing rather than escaping the burden of taxation.

Since stock dividends are already subjected to their full share of taxation, Representative Frear's bill taxing corporate surpluses out of which stock dividends arise or any other proposal with similar intent is unnecessary. Why try to tax a thing which is thought to evade taxation when it is already taxed? What is the value in attempting to remedy an evil that is imaginary? This is exactly what Mr. Frear and his colleagues would do. In their efforts, they are more or less fighting a straw man. Unless the present income-tax arrangement is changed, there are already adequate provisions for eradicating the alleged evils of stock dividends, and further legislation is a waste of time.

In addition to the fact that it is unnecessary, Mr. Frear's proposed law is opposed to the principles of corporation finance. In the successful management of every corporate enterprise, it is essential to put back into the business every year a large part of the current earnings. It is an extremely short-sighted policy to pay out in annual dividends everything that is earned. Edmond Lincoln very forcefully argues that "it is absolutely essential at all times to pay out less than is earned and in good years to 'plow' in a large proportion of the earnings in order to strengthen the company for the inevitable lean years."

Prof. Mead's Explanation

Likewise, Professor Mead, after laying sound rules, first as to the payment of dividends in the early history of the corporation and second as to the management of expense accounts, says: "The third rule or principle which we find to govern the dividend policy of well-managed companies is to pay out in cash dividends only a portion of the balance of income remaining in any year available for distribution to stockholders. Even after a large surplus has been accumulated to safeguard the dividend rate, and with the most careful management of depreciation and renewal accounts, the amount of this 'balance for dividend' is subject to wide fluctuations, which, in view of the desirability of maintaining a fixed rate of dividends, makes the distribution of the entire amount in any year unwise." These conclusions are so sound that it hardly seems necessary to offer any further proof. Thus any proposal to tax corporate surpluses is opposed to sound financial policy and is in direct conflict with the principles of safe financial management.

Again, Mr. Frear's bill involves double taxation. If it were enacted the national government would be taxing the same thing twice. Since corporations are already required to pay a flat rate of twelve and one-half per cent on their net income, an additional tax of from five to twenty per cent (depending upon the amount) on that portion of the net income retained in the business and transferred to surplus would be equivalent to placing a double burden upon the same income or property by the same civil unit. This we have always designated in this country as duplicate taxation and have always looked upon it as inequitable and unjustifiable.

But it may be objected that under Representative Frear's proposed legislation, corporations do not necessarily have to pay the tax. If they care to, they can escape by paying out all their surplus in the form of cash dividends. In fact, this seems to be the exact purpose of the bill, since it would prevent the distribution of non-taxable stock dividends and would make the cash dividends available for surtaxes as personal income in the hands of stockholders. But even this is a sort of double taxation. While it is perfectly clear that the corporation and the shareholders are separate legal entities, nevertheless, when they are both taxed on substantially the same thing, there is double taxation.

Partnership's Existence Ignored

According to the revenue act, the partnership's existence as an independent entity is ignored and only the partners are taxed. The same is true with reference to the individual enterprise. Why, then, tax both the corporation and the shareholders when both the partners and the partnership and the individual and the single enterprise are not taxed? While there is a legal difference between corporations and partnerships and single enterprises, yet there is no essential economic difference. To tax both the corporation and the shareholders is like taxing a bank on the interest accruing in favor

of its depositors and in addition taxing the balance to the depositors; or it is like levying on the income in the hands of trustees and then also levying on the same income paid to beneficiaries. If such things were done, we would consider it highly inequitable; yet we follow substantially such a method of procedure in the case of corporations. Consequently, whether incorporated concerns under the proposed law paid the tax and retained their surpluses or paid out the surpluses and made them taxable under the surtaxes as individual income to the stockholders, the law in effect would be productive of duplicate taxation.

Finally, Representative Frear's proposed legislation ignores the subsequent history of a great many corporate enterprises which accumulated surpluses during the war years. Since it calls for the taxation of corporate surpluses from 1917 to 1922 and each year thereafter, it leaves out of consideration entirely the large number of corporations that had their profits of earlier war years almost wholly wiped out by big deficits during 1920-21 when post-war depression set in. As illustrations of this, one needs to glance only at the annual reports of such concerns as B. F. Goodrich Co., American Rolling Mill Co. and General Motors Corporation. In other words, were corporate surpluses subjected to a tax dating back to 1917, a multitude of corporations would be compelled to pay heavy taxes on the surplus earnings of former years in spite of the fact that they suffered huge losses in later years, giving up practically all gains accruing from the period of war-time prosperity.

The proposed taxation of stock dividends, then, is unsound. Like the surtax itself, it is productive of double taxation. It is directly opposed to the principles of corporation finance. It is unnecessary under the present income-tax system, since stock dividends do not permanently escape from taxation and since corporate surpluses out of which stock dividends are declared are already subject to a net-corporate-income tax and a capital-stock tax.

Makes Its Tenth Annual Report

The United Paperboard Company, Inc., of 171 Madison avenue, New York city, has made its tenth annual report to its stockholders.

The report covers the year ending May 26, 1923. It shows mill earnings of $881,714.26 and net earnings of $646,275.02.

President Sidney Mitchell in his report said:

The period of depression in the Board business extended into the fiscal year ending May 26, 1923. The company made a small profit the first six months, amounting to $121,148.67, without deduction for depreciation. The last six months' earnings show considerable improvement.

The capacity of your mills has increased somewhat, and in the month of May the company produced the largest tonnage in its history although several of your mills were not in operation.

Improvements made during the year involved an expenditure of $158,728.01.

Cut Line of Waxed Papers

The Hamersley Manufacturing Company of 23-25 Park Place, New York city, has discontinued the manufacture of waxed papers with the exception of a few of its established specialties. The following will be continued:

Hammer-Parchment Brand greaseproof paper recognized for its great strength.

The Hamersley Roll Waxed Paper which is manufactured especially to meet the householder's needs.

Hamersley's Continuous Roll, a waxed tissue in rolls, packed in convenient envelopes in two sizes.

This company has been a pioneer in the waxed paper industry since 1877. It will now utilize its machines largely in making specialties in the paper line.

Noted Expert With Whiting-Plover Co.

Stevens Point, Wis., August 22, 1923.—The Whiting-Plover Paper Company, recently secured the services of Dr. Theobald Bentzen, a noted European scientist, as chief of its laboratory and research departments.

Dr. Bentzen is a native of Copenhagen, Denmark, but his work as an expert in various branches of paper manufacture has carried him to practically every country in the world where fine papers are made. He received his first theoretical education in chemistry at the University of Copenhagen.

Dr. Bentzen later spent considerable time in visiting various technical schools and also paper mills, in Sweden, Germany, and France, to study the theory and practice of paper-making.

Dr. Theobald Bentzen

In 1899 he was called to a paper mill at St. Petersburg, Russia, where was made the Russian paper money. Here he had an opportunity of developing his experience in the use of sulphite pulp in high grade papers.

In 1903, he left Russia, due to the unsettled political conditions, and took employment with several mills in western Europe, making bond, blueprint, writing, and photographic base paper.

He has often been called upon to make extended visits to England, France, Belgium, Italy and the United States as well as Germany, for the purpose of assisting the technical organizations of different plants as a consulting expert.

During his visits to this country he became well acquainted with the American paper industry and as conditions in Europe during the war were bad, and after the war, still worse, he determined to locate permanently in the United States, hence his connection with the Whiting-Plover paper company.

Norwegian Industries Fair Sept. 2-9

An important event in the paper trade will be the Norwegian Industries Fair, to be held in Christiania from September 2 to 9. The Fair, which prominently features in several classifications Norwegian products in the paper line, is aimed primarily at buyers, who welcome it in addition to its commercial uses because it affords an opportunity to see the world-famed Norwegian fjords.

Officials of the Fair announce that reservations for exhibits are booked to an extent twenty per cent greater than the bookings of 1922, so that this, the fourth annual occurrence, will apparently be the largest and most successful of them all. It will be formally opened by King Haakon.

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FIRST PRIZE $50.00 IN GOLD
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Contest opens at once and ends Sept. 1, 1923.
All lists mailed on or before this date will be considered.
Write only on one side of your paper.

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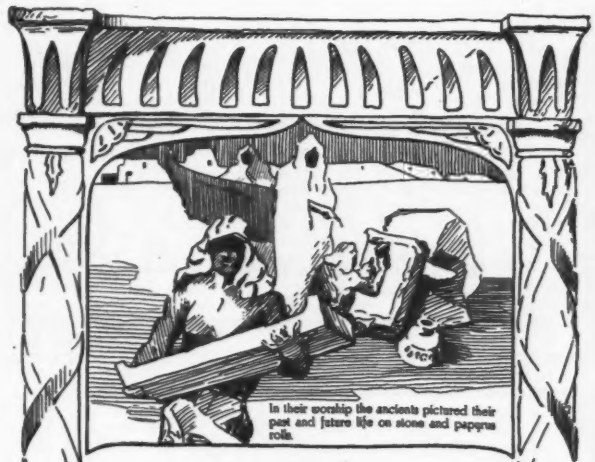

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Serve the Nations of the Earth today--

K. V. P. Genuine Vegetable Parchment
Pure Waxed Papers
Household Specialty Rolls
Bond and Ledger Papers

Kalamazoo Vegetable Parchment Co.
Kalamazoo, Mich.

J. ANDERSEN & CO.

21 EAST 40th STREET, NEW YORK CITY

Importers of Chemical Pulps

BLEACHED and UNBLEACHED

Agents for Kellner Partington Paper Pulp Co., Ltd.
Sarpsborg, Norway; Forshaga, and Edsvalla, Sweden.
Kronstädter Papierstoff — Fabriks Actien — Gesellschaft
Mills at Tucinsky, Sv. Martin

C. L. LaBoiteaux, President S. M. Phelan, Jr., Vice-Pres. & Gen. Mgr.

The
REPUBLIC PAPER BOARD COMPANY

C. LABOITEAUX, PRESIDENT

Ingalls Building Cincinnati, Ohio

Set-Up Boxboards
Folding Boxboards
Container Liners

Write Us or Wire Your Inquiries at Our Expense.

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING AUGUST 18, 1923

SUMMARY

News print.....56 rolls, 26 bls.
Printing paper .....44 cs.
Wall paper .....4 cs.
Cigarette paper.....1,229 cs., 4 bls., 400 crates
Kraft paper .....239 bls., 480 rolls
Packing paper.....1,425 bls., 2,265 rolls, 588 pkgs.
Wrapping paper.....213 bls., 331 rolls, 144 pkgs.
Filter paper.....11 cs., 10 bls.
Drawing paper .....4 cs.
Surface coated paper.....152 cs.
Tissue paper .....13 cs.
Colored paper.....11 cs.
Basic paper .....50 cs.
Hangings .....8 bls.
Lithograph paper .....60 cs.
Oatmeal paper .....1,130 rolls
Miscellaneous paper.....53 bls., 114 cs., 422 rolls

CIGARETTE PAPER

P. J. Schweitzer, Fenchurch, Marseilles, 53 cs.
P. J. Schweitzer, Lapland, Antwerp, 25 cs.
P. J. Schweitzer, France, Havre, 2 cs.
Liggett & Myers Tobacco Company, Aquitania, Liverpool, 20 cs.
Miguel, Castas & Miguel, Bankdale, Barcelona, 7 cs.
S. D. Joachim, Minnekahda, Hamburg, 10 cs.
Rose & Frank, Eglantine, Havre, 80 cs.
De Manduit Paper Corporation, by same, 23 cs.
De Manduit Paper Corporation, Sarcoxie, Nazaire, 139 cs.
R. J. Reynolds Tobacco Company, by same, 370 cs.
American Tobacco Company, Sarcoxie, Bordeaux, 500 cs.

FILTER PAPER

Orbis Products Trading Company, Sarcoxie, Bordeaux, 10 bls.
Zinkeisen & Co., Reliance, Hamburg, 10 cs.
M. Merck & Co., Bankdale, Marseilles, 1 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Baltic, Liverpool, 2 bls.
A. C. Dodman, Jr., Inc., by same, 6 bls.

WALL PAPER

A. C. Dodman, Jr., Inc., Lapland, Antwerp, 4 bls., 1 cs.
W. H. S. Lloyd & Co., by same, 1 cs.
A. Murphy & Co., by same, 1 cs.
A. Murphy & Co., Reliance, Hamburg, 1 cs.
National City Bank, Hannover, Bremen, 400 crates.

SURFACE COATED PAPER

Globe Shipping Company, Hannover, Bremen, 100 cs.
F. Heujes, Jr., by same, 24 cs.
Gevaert Company of America, Lapland, Antwerp, 28 cs.

BASIC PAPER

L. de Jonge & Co., Lapland, Antwerp, 25 cs.
F. Heujes, Jr., Hannover, Bremen, 25 cs.

LITHO. PAPER

Fuchs & Lang Manufacturing Company, Oanfa, Hong Kong, 60 cs.

OATMEAL PAPER

National City Bank, Minnekahda, Hamburg, 1,130 rolls.

WRAPPING PAPER

C. K. MacAlpine & Co., Mt. Clinton, Hamburg, 144 pkgs.
C. K. MacAlpine & Co., Westphalia, Hamburg, 331 rolls, 110 bls.
Wilkinson Brothers & Co., Inc., Westphalia, Hamburg, 51 bls.
H. Reeve Angel & Co., Inc., President Arthur, Bremen, 52 bls.

NEWS PRINT

H. Reeve Angel & Co., Inc., President Arthur, Bremen, 56 rolls, 26 bls.

PRINTING PAPER

Meadows, Wye & Co., Baltic, Liverpool, 13 cs.
B. F. Drakenfeld & Co., by same, 21 cs.

TISSUE PAPER

J. C. Robold & Co., Baltic, Liverpool, 13 cs.

KRAFT PAPER

Wilkinson Brothers & Co., Inc., Orbita, Hamburg, 33 bls., 470 rolls.
J. P. Heffernan Paper Company, by same, 58 bls.
M. O'Meara Company, by same, 148 bls.
W. Hartmann & Co., Inc., by same, 10 rolls.

PACKING PAPER

Mischell & Williams, Laconia, Hamburg, 136 bls.
Bernard, Judae & Co., by same, 15 bls.
National City Bank, Westphalia, Hamburg, 201 bls
Mischell & Williams, President Wilson, Trieste, 307 bls.
Wilkinson Brothers & Co., Inc., by same, 2,265 rolls.
Poland Paper Company, by same, 154 bls.
J. P. Heffernan Paper Company, Reliance, Hamburg, 556 bls.
J. Heffernan Paper Company, Rotterdam, Rotterdam, 11 bls.
Parsons & Whittemore, Ida, Trieste, 45 bls.
Republic Bag & Paper Company, by same, 588 pkgs.

DRAWING PAPER

Devoe & Reynolds, Aquitania, Liverpool, 2 cs.
E. Dietzgen & Co., by same, 1 cs.
H. Reeve Angel & Co., Inc., by same, 1 cs.

PAPER

Borden Riley Paper Company, Lapland, Antwerp, 11 cs. colored paper.

ONION SKIN PAPER

Import Paper Company, Rotterdam, Rotterdam, 12 cs.

PAPER

Wilkinson Brothers & Co., Inc., Orleita, Hamburg, 333 rolls.
Fourth Street National Bank, by same, 89 rolls.
Corn Exchange Bank, by same, 53 bls.
Erlietzgen & Co., Rotterdam, Rotterdam, 10 cs.
C. Steiner, by same, 17 cs.
Columbia Overseas Storage Company, by same, 24 cs.
Erstein & Co., France, Havre, 6 cs.
Japan Paper Company, by same, 8 cs.
C. B. Richard & Co., by same, 14 cs.
M. G. Lange & Co., Anaconda, Rotterdam, 12 cs.

RAGS, BAGGINGS, ETC.

Castle & Overton, Baltic, Liverpool, 66 bls. rags.
Castle & Overton, West Cherow, Antwerp, 49 bls. rags.
Castle & Overton, Oscar II, Copenhagen, 213 bls. rags, 583 bls. baggings.
Castle & Overton, President Wilson, Marseilles, 31 bls. rags.
Castle & Overton, Bankdale, Barcelona, 121 bls. rags.
M. O'Meara Company, by same, 157 bls. rags.
International Acceptance Bank, Hannover, Bremen, 205 bls. rags.
International Acceptance Bank, Laconia, Hamburg, 281 bls. rags.
L. H. Abenheimer, by same, 383 bls. rags.
Waste Material Trading Corporation, Anaconda, Rotterdam, 210 bls. rags.
L. H. Abenheimer, by same. 82 bls. bagging.
Katzenstein & Keene, Inc., by same, 126 bls. bagging, 93 bls. rags.
American Woodpulp Corporation, by same, 45 bls. rags.
P. Berlowitz, by same, 47 bls. rags.
Guaranty Trust Company, Kerhoukson, Belfast, 373 bls. rags.
International Acceptance Bank, by same, 57 bls. rags.
Brown Brothers & Co., by same, 88 bls. waste paper.
E. J. Keller Company, Inc., Ida, Trieste, 174 bls. jute waste.
E. J. Keller Company, Inc., Zeeland, Antwerp, 77 bls. linen thread.
New York Trust Company, W. Cawthorn, Leghorn, 152 bls. rags.
Columbia Bank, by same, 184 bls. rags.
Royal Manufacturing Company, Eastern Prince, Shanghai, 199 bls. cotton waste.
New York Trust Company, Sarcoxie, Bordeaux, 289 bls. rags.
Goldman, Sachs & Co., Sarcoxie, St. Nazaire, 103 bls. rags.
Equitable Trust Company, Lapland, Antwerp, 353 bls. flax waste.

OLD ROPE

G. W. Millar & Co., Westphalia, Hamburg, 12 coils, 25 bls.
Waste Material Trading Corporation, Laconia, Hamburg, 92 bls.
International Purchasing Company, Lapland, Antwerp, 143 bls., 52 coils.
Guaranty Trust Company, Nuria, Leghorn, 31 bls.
W. Schall & Co., Bankdale, Barcelona, 100 bls.

WOOD PULP

F. R. Eaton, Nova Queen, Bridgewater, N. S., 7,788 bls., 778 tons wood pulp.
Tidewater Papermills Company, Barnholm, Liverpool, N. S., 12,913 bls. wood pulp.
Tidewater Papermills Company, Barfond, Bathhurst, N. B., 4,757 bls. wood pulp.
Tidewater Papermills Company, Barfond, Pointau Pic, Que., 3,536 bls. wood pulp.
Pagel, Horton & Co., Inc., Gustavsholm, Domsjo, 2,406 bls. sulphite pulp, 1,500 bls. sulphate pulp.
Bulkley, Dunton & Co., Malta Maru, Iggesund, 1,250 bls. sulphate pulp, 1,750 bls. dry sulphite pulp.
Lagerloef Trading Company, Rockaway Park, Helsingfors, 680 bls., 102 tons strong sulphite pulp.
Lagerloef Trading Company, Rockaway Park, Kotka, 2,145 bls., 421 tons wet cellulose; 1,075 bls., 178 tons sulphite cellulose; 508 bls., 100 tons dry soda pulp.
H. Hollesen, Hannover, Bremen, 2,785 bls. wood pulp.
R. F. Hammond, Inc., Randsfjord, Christiania, 1,000 bls. wood pulp, 200 tons.
R. F. Hammond, Inc., Kungsholm, Gothenburg, 1,000 bls. wood pulp, 200 tons.

WOOD FLOUR

Innes, Spieden & Co., Orbita, Hamburg, 964 bags.

CASEIN

A. Klipstein & Co., Rhineland, Hamburg, 406 bags.
T. M. Duche & Sons, Vandyck, Buenos Aires, 417 bags.
Irving Bank Columbia Trust Company, by same, 1234 bags.

BOSTON IMPORTS

WEEK ENDING AUGUST 18, 1923

Scandinavian Pulp Agency, Gustavsholm, Domsjo, 500 bls. wood pulp.
Woodpulp Trading Co., Ltd., by same, 1,737 bls. wood pulp.
Pagel, Horton & Co., Inc., by same, 4,000 bls. wood pulp, 1,500 bls. sulphite pulp, 10,380 bls. sulphate pulp.
Pagel, Horton & Co., Inc., Malta Maru, Harnosand, 900 bls. unbleached sulphite, 450 bls. dry sulphite.
Johanesson, Wales & Sparre, Inc., by same, 180 bls. dry sulphite, 3,690 bls. dry sulphate.
National City Bank, by same, 3,000 bls. unbleached sulphate.

(*Continued on page 62*)

POWER PLANT PIPING

A F&C C

VALVES, FITTINGS, FLANGES, BENDS

Any Service *Any Pressure*

"AMERICAN" WELDED HEADERS PULP, AND PAPER MILL WORK

American Foundry and Construction Company

Engineers, Fabricators, Erectors

PITTSBURGH, PENNA.

F Diamond-F

PROTECTIVE PAPERS

Glassine Parchmoid

Vegetable Parchment Greaseproof

Diamond Fibre Receptacles of all kinds

Diamond State Fibre Company

BRIDGEPORT (near Philadelphia) PENNSYLVANIA

In Canada: Diamond State Fibre Company of Canada, Limited. 245 Carlaw Ave., Toronto, Ont.

THE WM. CABBLE EXCELSIOR WIRE MFG. CO.

Established 1848 Incorporated 1870-1898

Manufacturers of Superior Fourdrinier Wires Brass, Copper and Iron Wire Cloth of every Description. Best Quality of Wire Rope.

Write for Price List

74-90 Ainslie St. BROOKLYN, N. Y.

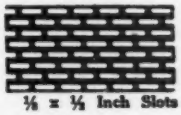
Perforated Metal Screens

For Pulp and Paper Mills

STEEL, COPPER, BRASS, BRONZE and other Alloys

.065 Inch Round

punched for Centrifugal and Rotary Screens, Pulp Washers, Drainer Bottoms, Filter Plates, etc.



⅛ x ½ Inch Slots

CHARLES MUNDT & SONS

53-65 FAIRMONT AVE. JERSEY CITY, N. J.

The B Co. Inc.

QUALITY PULPS

HAFSLUND NORWAY

"HAFSLUND BEAR" Bleached Sulphite

F:HAGA

"FORSHAGA" Bleached Sulphite

A.B. MÖLNBACKA-TRYSIL KI SWEDEN

"KLARAFORS" Easy Bleaching Sulphite

The Borregaard Company

Incorporated

200 FIFTH AVENUE NEW YORK, N. Y.

West Virginia Pulp and Paper Company

Manufacturers of

Supercalendered and Machine

Finished Book and Lithographic Papers

Offset, Envelope and Music Paper, High Grade Coated Book and Label Papers

also

Bleached Spruce Sulphite and Soda Pulp

200 Fifth Avenue New York

732 Sherman Street Chicago

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, August 22, 1923.

As the month progresses toward the close it becomes increasingly evident that the paper industry is going to recover from its summer dullness more quickly than usual this year. There has been a feeling throughout general business that things were drifting toward inflation, and this introduced an uncertain element into the market for a time, but now anxiety over this has disappeared, and it seems well assured that paper men are going to steer clear of this dangerous shoal.

Looking back over this summer and comparing it with others the paper manufacturer will find that he has much for which to be grateful. The summer doldrums have not been so bad as they have been in other years. Of course, there was a distinct let down for a time. Buying fell off, and indeed is far from back at the normal point once more. But granting this there have been many large orders placed and buyers were always drifting into the market when they were least expected.

Business has not been unsettled, and everyone has a comfortable feeling that business is in for a period of good, solid trading based on sound economic principles. It is conceivable that something may occur to upset the tranquillity that is now prevalent in the market. Indeed, there have been a number of things that have threatened to do this very thing, but now the threatening clouds have cleared up and the paper industry seems to be in for some pretty clear sailing.

Jobbers are reported to have been overselling their purchases from 10 to 30 per cent, and everyone knows that this means that their shelves must be about empty so that when the ultimate consumers begin demanding paper in really large quantities there will be a rush of business. Wrapping, book and fine papers have already felt the improvement and other grades are expected to follow soon.

One factor which has been an important influence in the general situation is the fact that manufacturers in certain lines of paper have feared a rise in the price of raw materials and have come into the market more heavily than they normally would at this time of year. This is notably true in waste paper where a good demand has forced prices up. To be sure it is reported that this demand was originally stimulated by artificial means, but it developed into the genuine thing very soon.

All grades of news print are reported to be in good demand. Side runs which lagged somewhat behind the other grades for a time have picked up and are now in almost as good demand as rolls and sheets. The general tone of the market is good, and it is probably about the best of any of the various grades.

Bigger shipments are moving in the fine paper market, which is beginning to feel the effect of the direct advertising campaigns now being gotten under way. In the open market the trading is still somewhat slow, but it is improving all the time.

There is still room for improvement in the book paper market, but dealers are cheerful over the amount of business they are getting, and the sameness that has marked this line for several months is giving way to a vast improvement.

Although tissues are still a little off the mills report a steady increase in inquiries, and they are getting ready for things to open up wide by the first of next month. Prices remain the same, but it is felt that they must go higher soon.

An increase in business was distinctly felt during the week in the board market. The same is true of coarse papers and wrapping. In all of these grades the dealers say that the call is constantly increasing and that business is bound to improve within a week or ten days.

Mechanical Pulp

Prices on ground wood remained firm and the demand steady during the week. This may be partly accounted for by the dry weather, but in the main it is due to the production of the news print mills, which are running pretty close to capacity in the majority of cases. It is believed that prices will have to go higher if rains do not come pretty soon, since it is highly improbable that the demand will lessen any.

Chemical Pulp

Chemical pulp is also in good condition although the demand is not so great as it is for mechanical pulp. Bleached sulphite showed some improvement as did unbleached. There were a few lots on the open market which were sold at concessions, but in the main prices stayed the same.

Old Rope and Bagging

Trading in old rope still continued to be better than that in bagging although neither are in as much demand as the other commodities on the raw material market. Dealers report in both grades that they are getting more positive inquiries from prospective customers, and there seems to be every indication that these markets will be carried along on the wave of prosperity that is due in the whole market.

Rags

Prices in both foreign and domestic rags have become considerably firmer during the week. Importations have increased and packers report that they are clearing away accumulations from their warehouses. The call for new rags is slightly better than the demand for old, but both fields are improving all the time.

Waste Paper

Waste paper in all grades is reported to be in unusually good demand, and dealers have about all the business they can handle. Prices are on the upgrade and are rising right along. Just how far these advances will go it is not possible to foretell, but there is little likelihood of their going in any direction but upward if the present market conditions continue.

Twine

Twine remains unchanged with a fairly good demand and prices just about the same as they have been for the past month. Dealers look for a turn in the market soon, and there will probably be some alterations in price when this comes.

Great Northern Has Field Day

[FROM OUR REGULAR CORRESPONDENT.]

BANGOR, Me., August 21, 1923.—The ninth annual field day of the Northern Club, composed of employes of the Great Northern Paper Company, was held at Camp Benson, Newport, recently with 300 members of the club and their families in attendance. The outing was one of the most enjoyable in the history of the organization.

Field sports, ball games, swimming and informal water sports were features of the day. Clarence Sargent and Forest Comber of Bangor were the stars in the events for the men and Elizabeth Harkness of Veazie was the high point winner in the women's events. The visitors were welcomed to Newport by State Senator Byron G. Croxford on behalf of the Chamber of Commerce. A fine chicken dinner was served by the ladies of the Newport churches.

At a brief business meeting, Ira W. Barker was elected president of the club for the ensuing year and Ross C. Danforth was elected vice president. Daniel J. Lean was elected secretary and Harold L. Miller was chosen treasurer. Mr. Barker, who has been acting as vice president during the past year, succeeds L. G. White as head of the organization.

The committees in charge of the occasion were: Grounds and banquet, I. W. Barker, chairman; D. J. Leen, D. N. Cronin; transportation, R. H. Bryant, chairman; H. B. Mower, H. C. Wiley; field sports, C. W. Curtis, chairman; William St. J. Murray, L. E. Houghton, H. W. Wright; music, H. L. Miller, chairman; J. B. Pratt; printing, E. E. Brown, chairman; L. W. O'Connor.

Market Quotations

Paper Stock Securities

New York Stock Exchange closing quotations August 21, 1923.

	BID	ASKED
American Writing Paper Company, pref.	8	9
International Paper Company, com.	34½	34¾
International Paper Company, pref. stamped	64	65
Union Bag & Paper Corporation	61	65

Paper

F. o. b. Mill

Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	30.00
Superfine	14.00	@	30.00
Tub Sized	10.00	@	15.00
Engine Sized	8.00	@	11.00
News—f. o. b. Mill—			
Rolls, contract	3.75	@	4.00
Rolls, transit	4.00	@	4.25
Sheets	4.25	@	4.50
Side runs	3.50	@	4.15
Book, Cased—f. o. b. Mill—			
S. & S. C.	7.25	@	9.00
M. F.	7.00	@	8.75
Coated and Enamel	9.00	@	14.00
Lithograph	9.00	@	14.00
Tissues—f. o. b. Mill—			
White No. 1	.80	@	.90
White No. 2	.85	@	.95
Colored	1.15	@	2.00
Anti-Tarnish	1.50	@	2.00
Kraft	.95	@	1.15
Manila	.78	@	.85
Kraft—f. o. b. Mill—			
No. 1 Domestic	6.50	@	7.50
No. 2 Domestic	6.00	@	6.50
Imported	6.50	@	7.00
Screenings	3.25	@	3.50
Manila—			
No. 1 Jute	8.50	@	9.00
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.50
No. 2 Wood	4.00	@	4.50
Butchers	4.25	@	4.75
Fibre Papers—			
No. 1 Fibre	6.00	@	6.25
No. 2 Fibre	5.25	@	5.50
Common Bogus	3.50	@	—
Card Middies	4.00	@	5.00
Boards—per ton—			
News	60.00	@	90.00
Straw	61.00	@	63.00
Chip	57.50	@	60.00
Binders' Boards	75.00	@	80.00
Sgl. Mla. Ll. Chip	74.00	@	80.00
Wood Pulp	70.00	@	75.00
Container	70.00	@	80.00
Sulphate Screenings—			
Coarse	.80	@	.90
Refined	1.75	@	2.00
Ground Wood—			
Screenings	20.00	@	25.00
Glassine—			
Bleached, basis 25 lbs.	15.00	@	16.00
Bleached, basis 20 lbs.	17.00	@	18.00
Papermakers' Felts per ton—			
Dry	75.00	@	85.00
Saturated	65.00	@	75.00
Sheathing Paper, per ton—			
Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.)	55.00	@	65.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	35.00	@	40.00

(F. o. b. Mill)

No. 1 Domestic	34.00	@	40.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	4.40	@	5.00
Easy Bleaching	3.50	@	3.75
No. 1 strong unbleached	3.30	@	3.50
No. 2 Strong unbleached	2.85	@	3.10
No. 1 Kraft	3.25	@	3.40
Sulphate—			
Bleached	4.00	@	4.15

(F. o. b. Pulp Mill)

Sulphite (Domestic)—			
Bleached	4.30	@	5.00
Mixed Strings	1.00	@	1.10
Easy Bleaching Sulphite	3.25	@	3.50
News Sulphite	3.00	@	3.25
Mitscherlich	3.20	@	3.30
Kraft (Domestic)	3.10	@	3.30
Soda Bleached	4.25	@	4.35

Domestic Rags

New

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—			
New White, No. 1	12.00	@	13.00
New White, No. 2	5.75	@	6.50
Silesias, No. 1	7.00	@	7.50
New Unbleached	10.50	@	11.00
Washables	4.50	@	4.75
Fancy	5.50	@	6.00
Cotton—according to Grades—			
Blue Overall	7.25	@	7.50
New Blue	4.50	@	5.50
New Black Soft	4.75	@	5.25
New Light Seconds	2.75	@	3.00
O. D. Khaki Cuttings	4.25	@	4.50
Men's Corduroy	3.00	@	3.50
New Canvas	6.50	@	7.00
New Black Mixed, Old	2.60	@	2.80
White, No. 1—			
Repacked	5.50	@	6.00
Miscellaneous	4.75	@	5.25
White, No. 2—			
Repacked	3.25	@	3.75
Miscellaneous	2.75	@	3.00
St. Soiled, White	1.90	@	2.10
Thirds and Blues—			
Repacked	2.35	@	2.60
Miscellaneous	1.90	@	2.15
Black Stockings	2.75	@	3.00
Roofing Rags—			
Cloth Strippings	1.10	@	1.20
No. 1	1.10	@	1.20
No. 2	1.05	@	1.15
No. 3	.80	@	.90
No. 4	.80	@	.90
No. 5A	1.00	@	1.10

Foreign Rags

New Light Silesias	6.00	nominal	
Light Flannelettes	6.75	nominal	
Unbl'chd Cottons	7.50	nominal	
New White Cuttings	9.50	nominal	
New Light Oxfords	6.00	nominal	
New Light Prints	4.50	nominal	
New Mixed Cuttings	2.00	@	2.50
New Dark Cuttings	1.90	@	2.10
No. 1 White Linens	10.00	nominal	
No. 2 White Linens	6.50	nominal	
No. 3 White Linens	5.00	nominal	
No. 4 White Linens	3.50	nominal	
Old Extra Light Prints	2.00	nominal	
Ord. Light Prints	1.75	nominal	
Med. Light Prints	1.50	nominal	
Dutch Blue Cotton	1.85	@	2.15
German Blue Cottons	1.50	@	1.65
Ger. Blue Linens	3.00	@	3.25
Checks and Blues	1.25	@	1.50
Dark Cottons	1.30	@	1.35
Shoppery	1.00	@	1.05
French Blues	1.75	@	2.00

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—			
Foreign	1.20	@	1.25
Domestic	1.30	@	1.35
Wool, Tares, light	1.30	@	1.40
Wool, Tares, heavy	1.30	@	1.40
Bright Bagging	1.05	@	1.20
Sound Bagging	.85	@	.95
Manila Rope—			
Foreign	5.95	@	6.20
Domestic	6.30	@	6.45
New Bu. Cut	2.15	@	2.25
Hessian Jute Threads—			
Foreign	2.00	@	2.25
Domestic	2.00	@	2.10
Strong unbl'chd	3.10	@	3.30

Twines

Cotton—(F. o. b. Mill)—			
No. 1	.35	@	.37
No. 2	.31	@	.33
No. 3	.37	@	.39
India, No. 6 basis—			
Light	.20	@	.21
Dark	.19	@	.20
B. C. 18 basis	.41	@	.42
A. B. Italian, 18 Basis	.51	@	.61
Finished Jute—			
Dark, 18 basis	.29	@	.30
Light, 18 basis	.26	@	.27
Jute Wrapping, 3-6 Ply—			
No. 1	.23	@	.24
No. 2	.21	@	.22
Tube Rope—			
4-ply and larger	.15	@	.17
Fine Tube Yarn—			
5-ply and larger	.19	@	.21
4-ply	.20	@	.22
3-ply	.20	@	.22
Unfinished India—			
Basis	.16	@	.17
Paper Makers' Twine Balls	.13	@	.15
Box Twine, 2-3 ply	.18	@	.19
Jute Rope	.17	@	.20
Amer. Hemp, 6	.33	@	.35
Sisal Hay Rope—			
No. 1 Basis	.15	@	.17
No. 2 Basis	.13	@	.15
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

Old Waste Papers

(F. o. b. New York.)

Shavings—			
Hard, White, No. 1	4.20	@	4.35
Hard, White, No. 2	3.40	@	3.50
Soft, White, No. 1	3.30	@	3.50
Flat Stock—			
Stitchless	1.95	@	2.05
Over Issue Mag.	1.95	@	2.05
Solid Flat Book	1.75	@	2.00
Crumbled No. 1	1.50	@	1.60
Solid Book Ledger	2.00	@	2.10
Ledger Stock	1.70	@	1.80
New B. B. Chips	.75	@	.85
Manilas—			
New Env. Cut	2.35	@	2.60
New Cut No. 1	1.75	@	2.00
Extra No. 1 old	1.55	@	1.65
Print	1.00	@	1.10
Container Board	.85	@	.95
Bogus Wrapper	.80	@	.90
Old Krafts, machine compressed Bales	1.85	@	2.00
News—			
No. 1 White News	2.00	@	2.10
Strictly overissue	1.10	@	1.25
Strictly Folded	1.05	@	1.15
No. 1 Mixed Paper	.90	@	1.00
Common Paper	.60	@	.70

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill

All Rag Bond	35	@	40
No. 1 Rag Bond	30	@	35
No. 2 Rag Bond	15	@	25
Water Marked Sulphite	10	@	14
Sulphite Bond	8½	@	12
Sulphite Ledger	9½	@	14
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	22
No. 2 Fine Writing	12	@	20
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	6¼	@	7
No. 1 S. & S. C. Book	6¾	@	7½
Coated Book	8¾	@	10¼
Coated Label	8½	@	10
News—Rolls, mill	4	@	4½
News—Sheets, mill	4¼	@	4¾
No. 1 Manila	4¾	@	6
No. 1 Fibre	5¼	@	5¾
No. 2 Manila	4½	@	5
Butchers' Manila	4	@	4½
No. 1 Kraft	7	@	7½
No. 2 Kraft	6½	@	7
Wood Tag Boards	5	@	6
Screenings	5	@	5½

Boards, per ton—			
Plain Chip	50.00	@	52.50
Solid News	54.00	@	56.50
Manila Lined Chip	67.00	@	70.00
Container Lined—			
85 Test	70.00	@	75.00
100 Test	75.00	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Soft Shav.	3.25	@	3.50
No. 1 Mixed	1.60	@	1.70
No. 2 Mixed	1.50	@	1.60
White Envel. Cuttings	3.25	@	3.50
Ledgers and Writings	1.90	@	2.05
Solid Books	1.90	@	2.05
No. 1 Books, Light	1.65	@	1.80
Blanks	2.15	@	2.25
Ex. No. 1 Manila	2.00	@	2.25
Manila Envelope Cuttings	2.50	@	—
No. 1 Manilas	1.60	@	1.70
Folders News (over issue)	1.35	@	1.45
Old Newspaper	1.20	@	1.25
Mixed Papers	1.00	@	1.10
Straw Clippings	.85	@	.90
Binders' Clippings	1.00	@	1.10
Kraft	2.40	@	2.50
New Kraft Cuts	2.50	@	2.60

Roofing Stock, f. o. b. Chicago, Net Cash—

No. 1	32.00	@	—
No. 2	30.00	@	—
No. 3	28.00	@	—
No. 4	28.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10	@	.60
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.06	@	.11
Book, S. S. & C.	.08	@	.15
Book, Coated	.08	@	.15
Coated Lithograph	.10	@	.15
Label	.08	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.10
No. 1 Kraft	—	@	.11
Common Bogus	.02½	@	.03
Straw Board	75.00	@	85.00
News Board	65.00	@	70.00
Chip Board	62.50	@	67.00
Wood Pulp Board	1.25	@	1.50

(Carload Lots)

Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	75.00	@	80.00
Tarred Felts—			
Regular	48.00	@	50.00
Slaters	54.00	@	56.00
Best Tarred, 1-ply (per roll)	1.35	@	1.50
Best Tarred, 2-ply (per roll)	1.00	@	1.15
Best Tarred, 3-ply	1.50	@	1.65

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.25	@	—
Domestic	1.20	@	1.25
Manila Rope	5.00	@	6.25
Sisal Rope	.75	@	.80
Mixed Rope	.75	@	.80
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	.75	@	.80
No. 1, New Lt. Burlap	1.75	@	2.00
New Burlap Cuttings	1.75	@	2.10

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.00	@	4.25
No. 2, Hard White	3.50	@	3.75
No. 1 Soft White	3.50	@	3.75
No. 2 Soft White	1.75	@	2.00

(Continued on page 64)

Imports and Exports of Paper and Paper Stock

(*Continued from page 58*)

American Woodpulp Corporation, Malta Maru, Sundsvall, 500 bls. sulphite pulp.

Scandinavian-American Trading Company, by same, 2,500 bls. dry sulphate, 625 bls. dry wood pulp.

Scandinavian Pulp Agency, Inc., by same, 500 bls. dry wood pulp.

Lagerloef Trading Company, Rockaway Park, Helsingfors, 2,923 bls., 417 tons strong sulphite; 305 bls., 50 tons bleached sulphite.

Lagerloef Trading Company, Rockaway Park, Kotka, 762 bls., 152 tons dry soda pulp; 3,883 bls., 638 tons sulphite cellulose.

Katzenstein & Keene, Inc., Davonian, London, 110 bls. new cuttings.

Katzenstein & Keene, Inc., Nitonian, Liverpool, 84 bls. new cuttings.

NEW ORLEANS IMPORTS

WEEK ENDING AUGUST 18, 1923

Castle & Overton, Edam, Rotterdam, 64 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 18, 1923

Bulkley, Dunton & Co., Malta Maru, Gefle, 4,000 bls. dry sulphate pulp.

Bulkley, Dunton & Co., Malta Maru, Iggesund, 295 bls. kraft sulphite pulp.

Woodpulp Trading Company, Ltd., by same, 3,995 bls. kraft sulphite pulp.

Woodpulp Trading Co., Ltd., Malta Mar,u Harnosand, 1,800 bls. unbleached sulphite.

American Woodpulp Corporation, Malta Maru, Sundsvall, 875 bls. dry sulphite.

American Woodpulp Corporation, Malta Maru, Skutskar, 2,400 bls. dry wood pulp.

Scandinavian Pulp Agency, Inc., by same, 2,475 bls. dry wood pulp.

Scandinavian-American Trading Company, Malta Maru, Skutskar, 1,750 bls. dry wood pulp.

Lagerloef Trading Company, Rockaway Park, Helsingfors, 158 bls., 26 tons strong sulphite.

Lagerloef Trading Company, Rockaway Park, Kotka, 1,016 bls., 203 tons dry soda pulp; 254 bls., 50 tons dry white wood pulp; 10,043 bls., 1,675 tons sulphite cellulose; 167 bls., 24 tons wood pulp boards.

Katzenstein & Keene, Inc., C. of Eureka, Leghorn, 63 bls. rags.

Woodpulp Trading Co., Ltd., Mexicano, Gothenburg, 1,250 bls. sulphite pulp.

R. F. Hammond, Inc., by same, 500 bls. wood pulp, 100 tons.

Woodpulp Trading Co., Ltd., Lygnern, Gothenburg 1,800 bls. kraft pulp.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 18, 1923

Katzenstein & Keene, Inc., Hudson, Havre, 164 bls. rags.

Katzenstein & Keene, Inc., M. Mariner, London, 148 bls. new cuttings.

E. J. Keller Company, Inc., M. Mariner, Manchester, 141 bls. bagging.

E. J. Keller Company, Inc., W. Cherow, Antwerp, 176 bls. bagging, 23 bls. rags.

E. J. Keller Company, Inc., Emden, Hamburg, 1,456 bls. rags, 200 bls. rag pulp.

Castle & Overton, Frede, Copenhagen, 214 bls. rags.

Castle & Overton, Hudson, Havre, 187 bls. rags, 130 bls. bagging.

Castle & Overton, Sarcoxie, St. Nazaire, 342 bls. rags.

Irving Bank Columbia Trust Company, Sarcoxie, Bordeaux, 389 bls. rags.

E. J. Keller Company, Inc., W. Cawthorn, Genoa, 39 bls. cotton waste.

New York Trust Company, W. Cawthorn, Leghorn, 335 bls. rags.

Katzenstein & Keene, Inc., Eglantine, Havre, 87 bls. rags.

E. J. Keller Company, Inc., by same, 18 bls. rags.

New York Trust Company, by same, 89 bls. rags.

American Woodpulp Corporation, by same, 327 bls. rags.

American Woodpulp Corporation, Eglantine, Dunkirk, 291 bls. rags.

Kidder, Peabody & Co., by same, 368 bls. rags.

Waste Material Trading Corporation, Anaconda, Rotterdam, 347 bls. rags, 97 bls. fustians.

E. J. Keller Company, Inc., by same, 284 bls. rags.

Katzenstein & Keene, Inc., by same, 390 bls. rags.

L. H. Abenheimer, by same, 120 bls. bagging.

Castle & Overton, by same, 239 bls. rags.

Castle & Overton, Bankdale, Barcelona, 197 bls. rags.

M. O'Meara Company, by same, 93 bls. rags.

New York Trust Company, by same, 22 bls. rags.

Castle & Overton, Frode, Copenhagen, 77 bls. old rope.

Woodpulp Trading Co., Ltd., Lygnern, Gothenburg, 1,750 bls. kraft pulp.

Tells of Untouched Forestry Wealth

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 21, 1923.—Forest reserves sufficient to maintain a big paper industry exist in the south, according to Dr. Arthur D. Little of Cambridge, Mass., past president of the American Chemical Society.

Commenting on the statement prepared by Col. W. B. Greeley, chief of the United States forestry service, for the guidance of the member organizations of the Federated American Engineering Societies, Mr. Little asserts the necessity of research, declaring that huge quantities of cordwood now wasted could be made to yield by-products with profit.

Col. Greeley, warning that a timber famine was at hand, said that "a tremendous opportunity is offered the engineer, the chemist, and the wood technician in adapting the forest-grown material now available within reasonable cost limits, particularly the second-growth material which must be utilized more and more largely as time goes on, to the needs of our industries."

Mr. Little said that Col. Greeley was well within the facts in stating that the problems involved in the better utilization of forest-grown material offer "a tremendous opportunity" to the chemist, but, he added, it must be pointed out that there are problems which the chemist cannot hope to solve without sustained and generous financial support.

"Research is necessarily expensive, and, where its purpose is the development of new industrial processes, professional skill cannot go far without courageous backing," continued Mr. Little. "The opportunity and the chemists are here—the money must come from men of vision who recognize the power of research to create new wealth. The proposed and perhaps impending Canadian embargo on pulpwood invests with new and added interest our great reserves of Alaskan spruce, which if developed wisely, should enable us to supply the world with news print paper for many years to come. Of more immediate interest, however, are the supplies of gum woods, tupelo and pine available in our southern states in amounts sufficient to support an extensive and diversified paper industry.

"Another source of wealth as yet practically untouched exists in the millions of acres of cut-over yellow pine lands in the south.

Toilet Paper Brand Registration

Applications for registration of the following brand names have been made in the Toilet Paper Label Registration Bureau:

From June 20, 1923, to and inc. July 20, 1923

Bellmore	Buist Company, San Francisco, Cal.
Bunker Hill	Northern Paper Mills, Green Bay, Wis.
Canvas Back	Continental Paper and Bag Mills, New York, N. Y.
Jerico	Northern Paper Mills, Green Bay, Wis.
No. 66	Buist Company, San Francisco, Cal.
No. 99	Buist Company, San Francisco, Cal.
Silko	Buist Company, San Francisco, Cal.
Taxi	Buist Company, San Francisco, Cal.
Town Crier	Regal Paper Company, Pulaski, N. Y.
Vaahon	Buist Company, San Francisco, Cal.

The following brand names have been registered in the Toilet Paper Label Registration Bureau of the Tissue Paper Manufacturers Association:

From June 29, 1923, to and inc. July 20, 1923

Aetna Oval	National Paper Products Company, San Francisco, Cal.
Baltic Oval	National Paper Products Company, San Francisco, Cal.
Base Ball	American Toilet Paper Company, Utica, N. Y.
Bestmade	Edgar B. Flack Company, Cleveland, Ohio.
Finestmade	Edgar B. Flack Company, Cleveland, Ohio.
The Follies	American Toilet Paper Co., Utica, N. Y.
Kitty Kitty	American Toilet Paper Co., Utica, N. Y.
Lake Park	Edgar B. Flack Company, Cleveland, Ohio.
Maderite	Edgar B. Flack Company, Cleveland, Ohio.
Papersoap	American Toilet Paper Co., Utica, N. Y.
Papedsol	American Toilet Paper Co., Utica, N. Y.
Paprex	American Toilet Paper Co., Utica, N. Y.
Rocky River	Edgar B. Flack Company, Cleveland, Ohio.
Rugby Oval	National Paper Products Company, San Francisco, Cal.
Theatre	American Toilet Paper Company, Utica, N. Y.
Tissusoap	American Toilet Paper Company, Utica, N. Y.
Tissusol	American Toilet Paper Company, Utica, N. Y.
Two Fold Tissue	National Paper Products Company, San Francisco, Cal.
Walnut	Edgar B. Flack Company, Cleveland, Ohio.

The Home of Quality

FACTORY
132ND TO 133RD ST. & BROOK AVE

PAPER BAGS

Sacks and Specialties

ESTABLISHED 1901

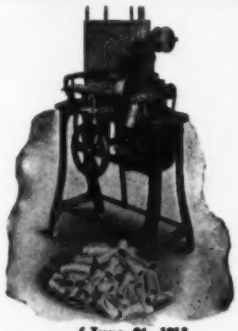
SCHORSCH & CO.

Manufacturers

500 East 133d Street : New York

This Registered Trade Mark Octagon

on a Paper Bag Vouches for Its Good Quality



GRISSINGER
Patented
AUTOMATIC TUBE MACHINE
Wire Stitched Tube
TOILET PAPER MACHINERY
GRISSINGER MACHINE WORKS
PHILADELPHIA, PA.

Patented { June 24, 1913. August 10, 1915.

Clay

300 Tons daily

Satisfactory deliveries of the *clay* you prefer at prices you will consider reasonable—such is M-E service!

Let us submit samples and quote you.

AMERICAN MADE FOR AMERICAN TRADE

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COLORS FOR
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INCORPORATED

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BOSTON - 157 Federal St. PHILA. - 111 Arch St.
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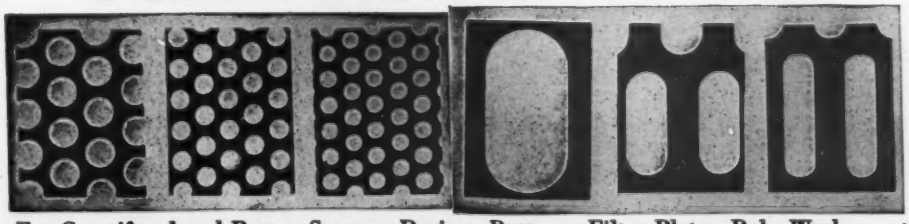
PERFORATED METALS

All sizes and shapes of Holes



All kinds and thicknesses of Metal

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

The Harrington & King Perforating Company

618 No. Union Ave., Chicago, Ill., U. S. A. New York Office, 114 Liberty St.

Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
OFFICE OF THE PAPER TRADE JOURNAL,

Chemicals are always the first to feel the let-up in business during the summer, and they are quite often the last to come back to normal again. This season has been no exception, and there is no doubt that chemicals are still moving slowly, but at the same time there is every evidence that the turn of the market is due within ten days or two weeks. Developments in the paper market will necessitate more buying for the manufacturers must be using up their stocks very rapidly, now that the mills have begun to run at good production once more. So dealers in chemicals have every reason to be optimistic, and most of them are preparing for an unprecedented rush of orders when the buying does begin—unprecedented at least as far as this year is concerned.

BLEACHING POWDER.—Bleach is still moving extremely slow. The tendency to cut prices has passed, however, although there are a few distressed lots always in the market that can be picked up somewhat below the normal price. At present it is being quoted at 1.50 to 1.60 cents a pound, and it is reported that any change that comes now will be upward rather than lower.

BLANC FIXE.—The market for blanc fixe remains about the same although dealers say that they are receiving more inquiries than is usual for this time of the year. It is believed that the revival in this commodity will come a little earlier than usual and that business will be excellent once it gets started. The price is still fairly firm at $30 to $55 a ton on the pulp grade and $80 to $85 on the dry.

CAUSTIC SODA.—Paper manufacturers are still holding off on buying caustic although it is thought hardly likely that they can continue to do so much longer. Meanwhile there is a good demand from other industries, and this is keeping the price up to 3.17 to 3.20 cents a pound. It is considered unlikely that there will be any downward revision of this.

CASEIN.—Casein is still in rather slack demand as far as the paper industry is concerned with no changes in either direction. The price is quite firm at 15.50 to 17 cents a pound although there are some occasional lots in the spot market that can be picked up more cheaply.

CHINA CLAY.—The demand for china clay is also still rather slow although there are signs of it picking up within a short time. More inquiries are being made about fall shipments, and it is possible that the price will go higher. Domestic is selling for $10 to $15 a ton and imported from $16 to $23.

CHLORINE.—Paper men continued to show little interest in chlorine during the past week, although there has been some improvement. There is enough demand from other industries to keep the price firm at from 4.20 to 4.40 cents a pound in tanks.

ROSIN.—There continued to be little call for the paper making grades of rosin, but there are evidences of a revival in naval stores The price is a little lower, running from $5.95 to $6.00 for 280 pounds in barrels.

SALTCAKE.—Little change has come in the saltcake market in the week so far as the paper industry is concerned, although the glass and other industries are calling for it in reasonably large lots, thus keeping the price at $22 to $24 a ton.

SODA ASH.—Buying of soda ash has also been rather slow this week just as it has been for a month or so back. Dealers are not worried, however, and report that they are getting ready for a good business they believe is due to arrive by the first of the month.

SULPHATE OF ALUMINA.—Alumina sulphate is in poor demand generally speaking although the price continues firm. Some lots of fair size have passed through the open market, but things are far from normal. Iron free is still at from 2.05 to 2.25 cents a pound and commercial 1.25 to 1.35 cents.

Market Quotations

(*Continued from page 61*)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.50	@	2.75
Writing Paper	2.25	@	2.50
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.50	@	1.75
Container Manila	1.35	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.50	@	1.60
Old Newspaper	1.00	@	1.50
No. 1 Mixed Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10
Domestic Rags—New. Price to Mill, f. o. b. Phila.			
Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	—
Silesias, No. 1	.07¼	@	.07½
New Unbleached	.10	@	.11
Washables	.04½	@	—
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.02¼	@	.02¼
New Black Soft	.06¼	@	.06½
New Light Seconds	.02¾	@	.02¾
Khaki Cuttings	.11	@	.04½
Corduroy	.03½	@	.04
New Canvas	.08¼	@	.08¾
New Black Mixed	.04	@	—
Old White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.85	@	1.90
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	1.15	@	1.20
No. 4	1.15	@	1.20
No. 5A	1.10	@	—
B			nominal
C			nominal

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.09½	@	.63
Ledgers	.09½	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.07¼	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	—
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$60.00	@	—
News, Vat Lined	60.00	@	65.00
Wood, Vat Lined	70.00	@	72.50
Filled News Board	60.00	@	65.00
Solid News Board	65.00	@	80.00
S. Manila Chip	75.00	@	80.00
Pat. Coated	90.00	@	100.00

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	4.15
No. 1 Soft White	3.25	@	3.35
No. 1 Mixed	1.00	@	1.25
Ledgers & Writing	2.00	@	2.25
Solid Books	2.00	@	2.10
Blanks	2.00	@	—
No. 2 Light Books	1.50	@	—
Folded News, overissues	1.10	@	1.20
Gunny Bagging	1.00	@	—
Manila Rope	5.00	@	5.25
Mixed Paper	.90	@	1.00
Old News	.90	@	—
Old Kraft	1.90	@	2.00
No. 1 Scrap Burlap	.80	@	1.00
No. 2 Roofing Bagging	.60	@	.70
Mixed Strings	.90	@	1.00
No. 1 Roofing Rags	1.55	@	—

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.00	@	—
No. 2 Coated and litho	13.00	@	—
No. 3 Coated and litho	12.25	@	—
Coated and litho., colored	14.25	@	—
Wrapping—			
Grey	5.00	@	—
White Wrap	5.75	@	—
"B" Manila	6.00	@	—
No. 1 Manila	7.25	@	—
Fiber	7.25	@	—
Kraft, M. F.	8.00	@	—
M. G.	8.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$36.00	@	38.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached	90.00	@	92.50
Sulphate	70.00	@	72.50

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.65	@	—
Soft White Book shavings	3.30	@	—
White Blk. News	1.80	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.30	@	—
Light and Crumpled Book Stock	1.15	@	—
Ledgers and Writings	1.85	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut.	1.90	@	—
Printed Manilas	1.55	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	1.00	@	—
Folded News	1.00	@	—
No. 1 Mixed Papers	.85	@	—
Domestic Rags—			
Price to mills, f. o. b. Toronto			Per lb.
No. 1 White shirt cuttings	.12	@	—
No. 2 White shirt cuttings	.06	@	—
Fancy shirt cuttings	.05½	@	.06
No. 1 Old Whites	.04½	@	—
Third and blues	.02¼	@	.02½
			Per cwt.
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Manila rope	.05¼	@	.06
No. 2	1.55	@	—
Gunny Bagging	.01½	@	—